2nd Grade

CALIFORNIA

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CALIFORNIA

GO MATH!

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The Authors

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CALIFORNIA

GO MATH!

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Number Sense and Place Value

Critical Area Extending understanding of base-ten notation

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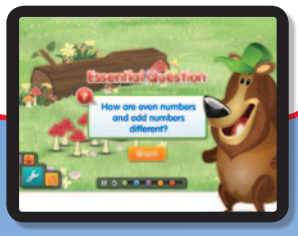

Chapter 1 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How do you use place value to find the values of numbers and describe numbers in different ways?
- How do you know the value of a digit?
- What are some different ways to show a number?
- How do you count by 1s, 5s, 10s, and 100s?

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Chapter 2 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How can you use place value to model, write, and compare 3-digit numbers?
- How can you use blocks to show a 3-digit number?
- How can you write a 3-digit number in different ways?
- How can place value help you compare 3-digit numbers?

2 Numbers to 1,000 53

Domain Number and Operations in Base Ten

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Addition and Subtraction

COMMON CORE **Critical Area** Building fluency with addition and subtraction

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Critical Area

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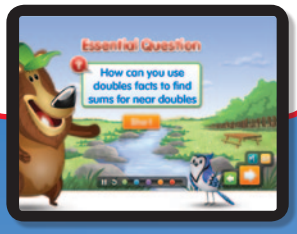

Chapter 3 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How can you use patterns and strategies to find sums and differences for basic facts?
- What are some strategies for remembering addition and subtraction facts?
- How are addition and subtraction related?

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Chapter 4 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How do you use place value to add 2-digit numbers, and what are some different ways to add 2-digit numbers?
- How do you make an addend a ten to help solve an addition problem?
- How do you record the steps when adding 2-digit numbers?
- What are some ways to add 3 numbers or 4 numbers?

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Domain Number and Operations in Base Ten

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In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How do you use place value to subtract 2-digit numbers with and without regrouping?
- How can you break apart numbers to help solve a subtraction problem?
- What are the steps you use when you solve 2-digit subtraction problems?
- What are some different ways to model, show, and solve subtraction problems?

Chapter 6 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- What are some strategies for adding and subtracting 3-digit numbers?
- What are the steps when finding the sum in a 3-digit addition problem?
- What are the steps when finding the difference in a 3-digit subtraction problem?
- When do you need to regroup?

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Critical Area

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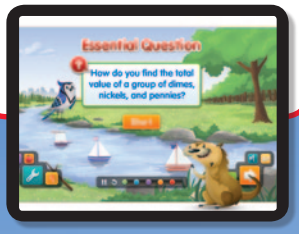

Chapter 7 Overview

Essential Questions:

- How do you use the values of coins and bills to find the total value of a group of money, and how do you read times shown on analog and digital clocks?
- What are the names and values of the different coins?
- How can you tell the time on a clock by looking at the clock hands?

Chapter 8 Overview

Essential Questions:

- What are some of the methods and tools that can be used to estimate and measure length?
- What tools can be used to measure length and how do you use them?
- What units can be used to measure length and how do they compare with each other?
- How can you estimate the length of an object?

Measurement and Data

COMMON CORE **Critical Area** Using standard units of measure

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Domain Measurement and Data

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- What are some of the methods and tools that can be used to estimate and measure length in metric units?
- What tools can be used to measure length in metric units and how do you use them?
- What metric units can be used to measure length and how do they compare with each other?
- If you know the length of one object, how can you estimate the length of another object?

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Domain Measurement and Data

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Chapter 10 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- How do tally charts, picture graphs, and bar graphs help you solve problems?
- How are tally marks used to record data for a survey?
- How is a picture graph made?
- How do you know what the bars in a bar graph stand for?

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Critical Area

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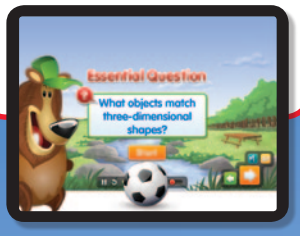

Chapter 11 Overview

In this chapter, you will explore and discover answers to the following **Essential Questions**:

- What are some two-dimensional shapes and three-dimensional shapes, and how can you show equal parts of shapes?
- How can you describe some two-dimensional and three-dimensional shapes?
- How can you describe equal parts of shapes?

Geometry and Fractions

COMMON CORE **Critical Area** Describing and analyzing shapes

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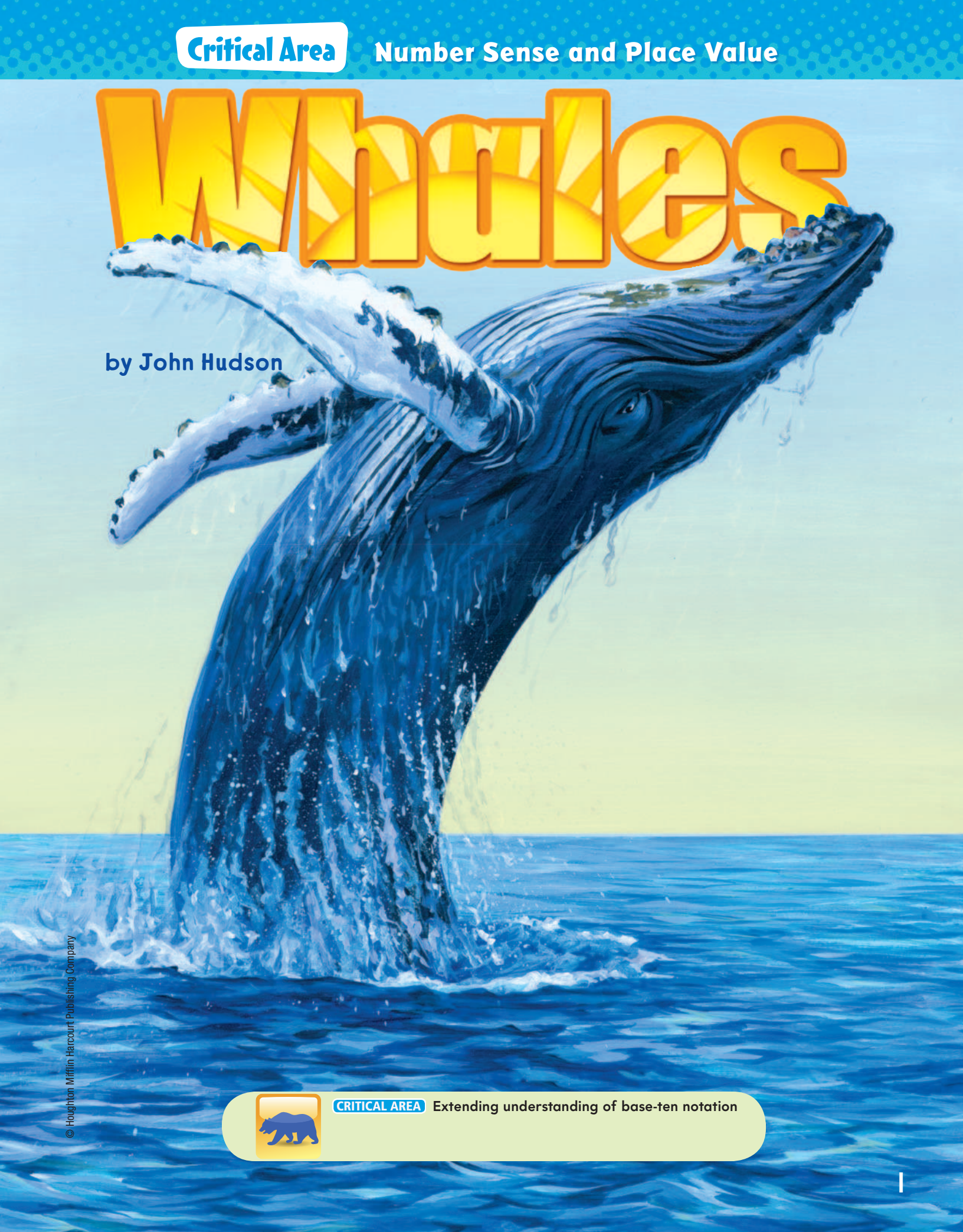
Whales

by John Hudson



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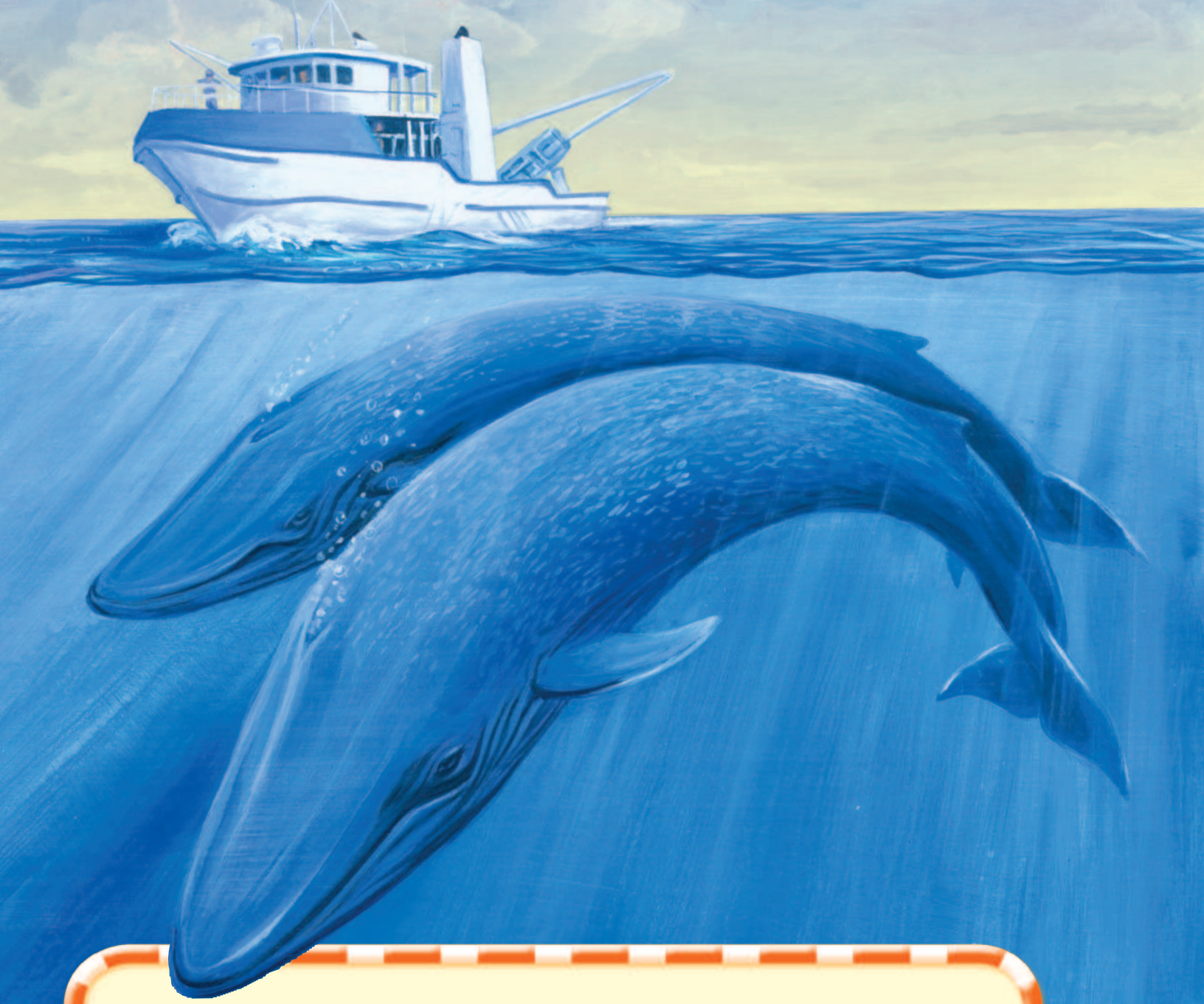
CRITICAL AREA Extending understanding of base-ten notation



Some scientists study whales. Different kinds of whales swim along the west coast of the United States of America.
A scientist sees 8 blue whales.
Blue whales are the largest animals on Earth.

Social Studies

Where is the United States of America on the map?

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The scientist also sees 13 humpback whales.

Humpback whales sing underwater.

Did the scientist see more humpback whales or more blue whales? more _____ whales

Social Studies

Where is the Pacific Ocean on the map?

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Whales also swim along the east coast of Canada and the United States of America. Pilot whales swim behind a leader, or a *pilot*. A scientist sees a group of 29 pilot whales.

Social Studies

Where is Canada on the map?

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Fin whales are fast swimmers. They are the second-largest whales in the world. A scientist sees a group of 27 fin whales. How many tens are in the number 27?

_____ tens

Social Studies

Where is the Atlantic Ocean on the map?

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Humpback whales swim to the warm water near Mexico for the winter. Humpback whales may have as many as 35 throat grooves.

In the number 35, the _____ is in the ones place and the _____ is in the tens place.

Social Studies

Where is Mexico on the map?

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Name _____

Write About the Story

Look at the pictures. Draw and write your own story. Compare two numbers in your story.

Vocabulary Review

more	fewer
tens	greater than
ones	less than

WRITE Math

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The Size of Numbers

The table shows how many young whales were seen by scientists.

Young Whales Seen	
Whale	**Number of Whales**
Humpback	34
Blue	13
Fin	27
Pilot	43

1. Which number of whales has a 4 in the tens place?

_____

2. How many tens and ones describe the number of young blue whales seen?

_____ ten _____ ones

3. Compare the number of young humpback whales and the number of young pilot whales seen. Write > or <.

34 ◯ 43

4. Compare the number of young fin whales and the number of young blue whales seen. Write > or <.

27 ◯ 13

MATH BOARD

Write a story about a scientist watching sea animals. Use some 2-digit numbers in your story.

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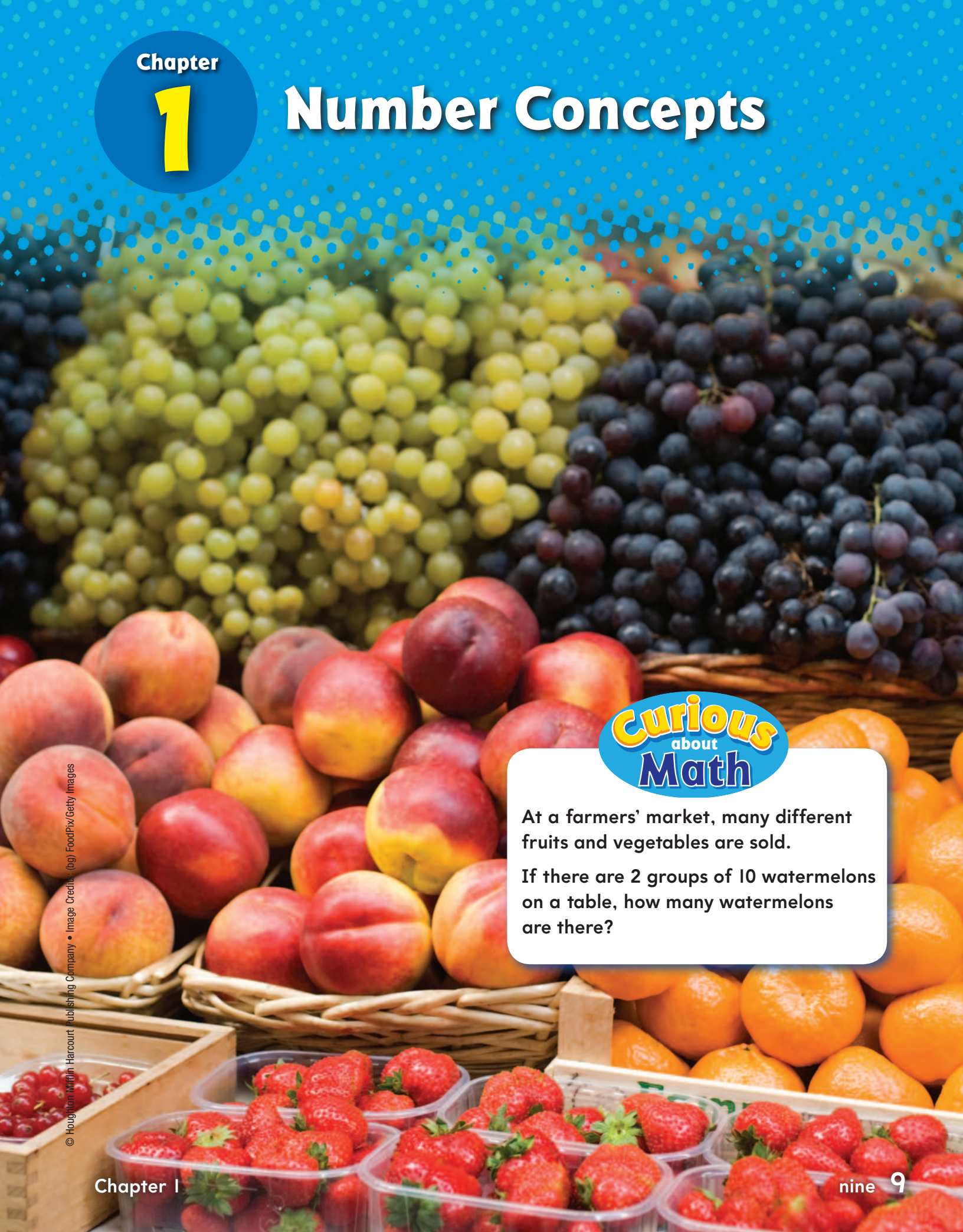
Chapter 1

Number Concepts



Curious about Math

At a farmers' market, many different fruits and vegetables are sold.

If there are 2 groups of 10 watermelons on a table, how many watermelons are there?

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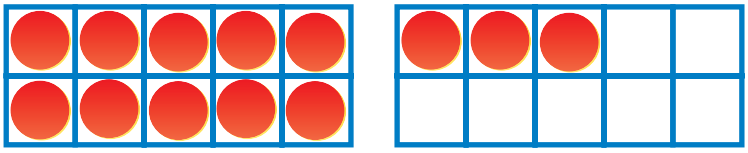
Name _____

Show What You Know

Model Numbers to 20

Write the number that tells how many.

1. 

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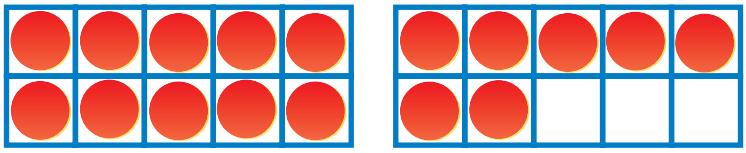
2. 

_____

Use a Hundred Chart to Count

Use the hundred chart.

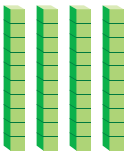
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3. Count from 36 to 47. Which of the numbers below will you say? Circle them.

42 31 48 39 37

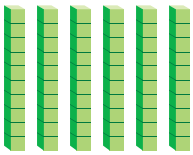
Tens

Write how many tens. Write the number.

4. 

_____ tens

_____

5. 

_____ tens

_____

This page checks understanding of important skills needed for success in Chapter 1.

Personal Math Trainer
Online Assessment and Intervention

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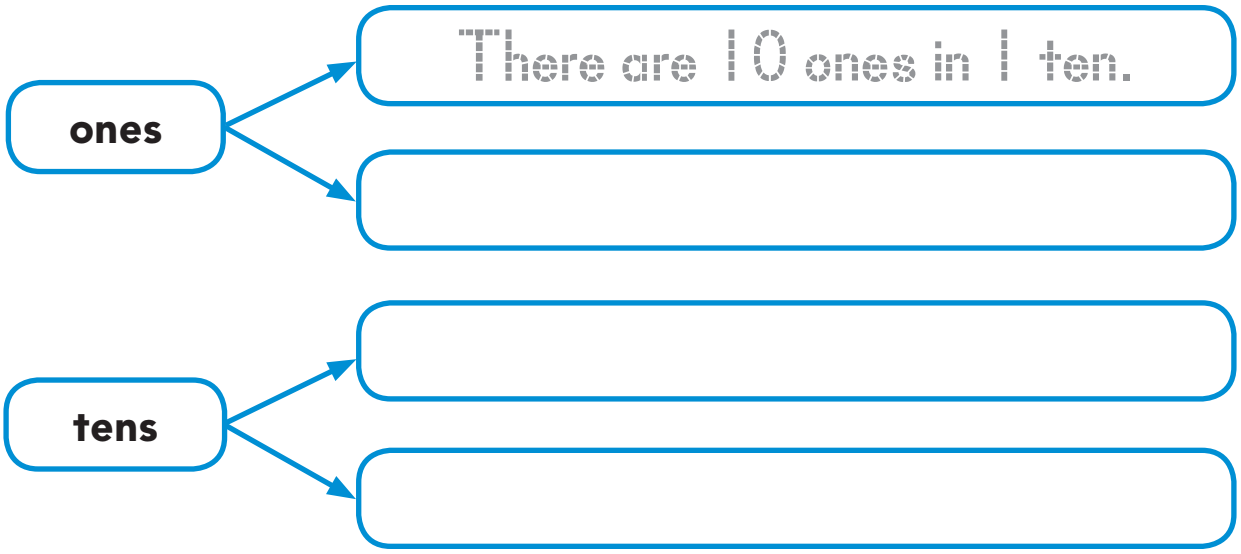
Name _____

Vocabulary Builder

Review Words
ones
tens
count on
count back

Visualize It

Fill in the boxes of the graphic organizer.
Write sentences about **ones** and **tens**.



Understand Vocabulary

1. Start with 1. **Count on** by ones.

   1, ____, ____, ____, ____, ____

2. Start with 8. **Count back** by ones.

   8, ____, ____, ____, ____, ____

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Game Three in a Row

Materials • 15 • 15 •

Play with a partner.

1. Choose a leaf. Read the number on the leaf. Use to model the number.
2. Your partner checks your model. If your model is correct, put your on the leaf.
3. Take turns. Try to get 3 in a row.
4. The first player with 3 in a row wins.

5	21	13	19	20
25	15	7	8	12
11	9	14	16	24
22	23	17	18	10

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Name _____

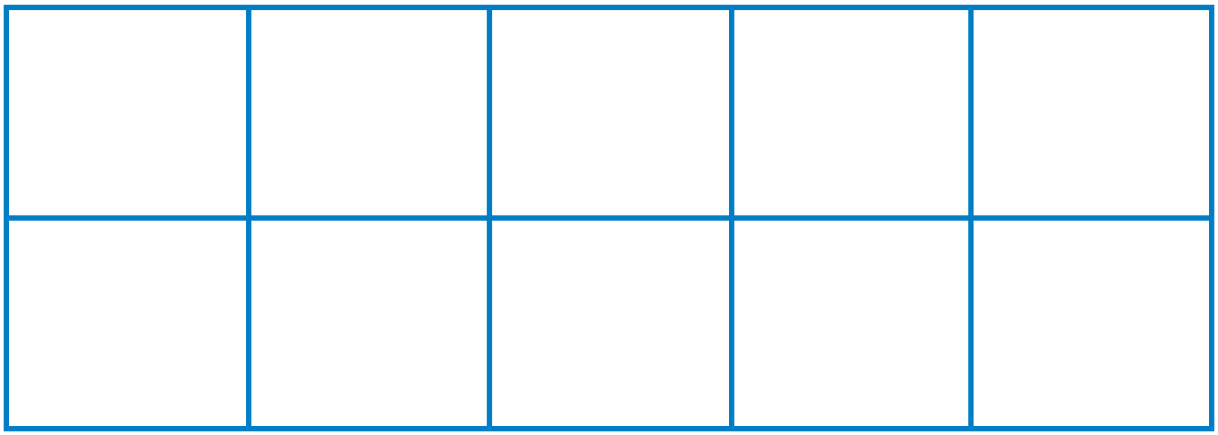
Algebra • Even and Odd Numbers

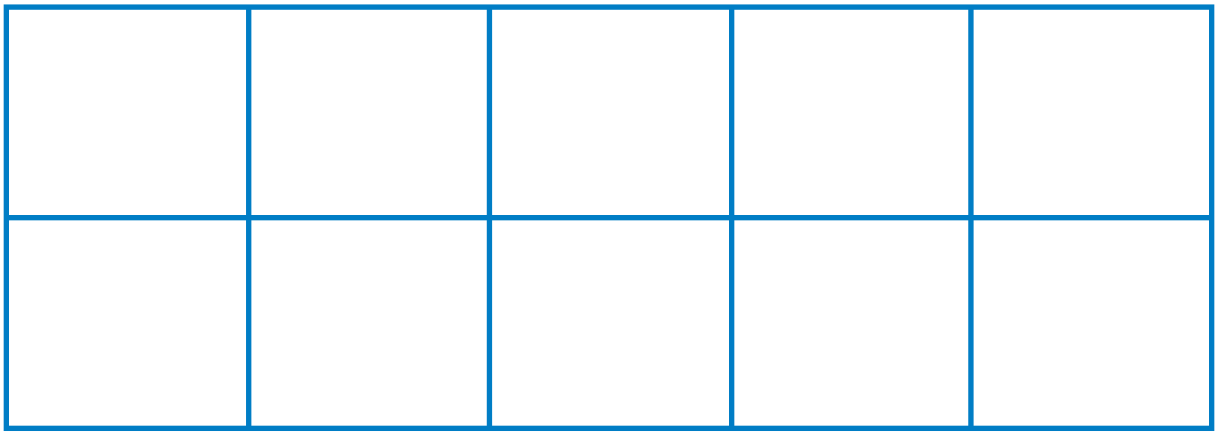
Essential Question How are even numbers and odd numbers different?

Operations and Algebraic Thinking—2.OA.3

MATHEMATICAL PRACTICES
MP.3, MP.5, MP.7

Use to show each number.





FOR THE TEACHER • Read the following problem. Beca has 8 toy cars. Can she put her cars in pairs on a shelf? Have children set pairs of cubes vertically on the ten frames. Continue the activity for the numbers 7 and 10.

Mathematical Practices

When you make pairs for 7 and for 10, how are these models different? **Explain.**

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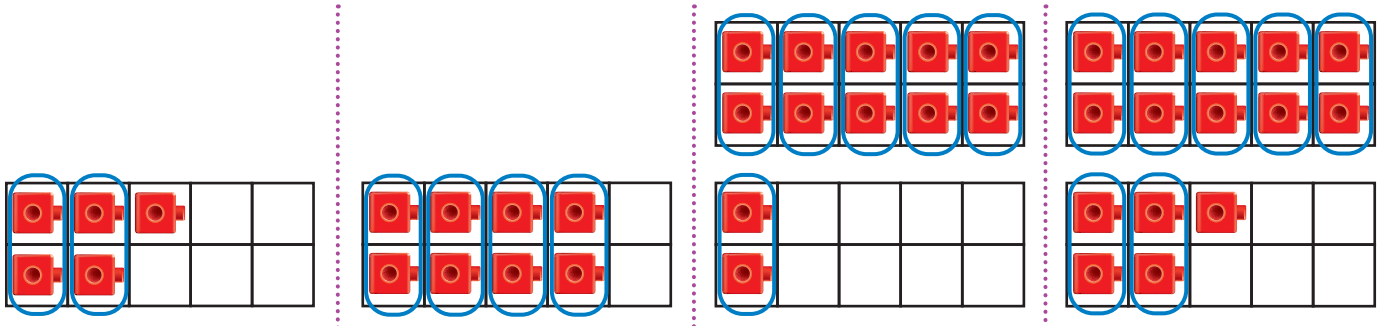
Model and Draw

Count out cubes for each number. Make pairs.
Even numbers show pairs with no cubes left over.
Odd numbers show pairs with one cube left over.



5 odd

8 even

12 _____

15 _____

Share and Show

MATH BOARD

Use cubes. Count out the number of cubes.
Make pairs. Then write **even** or **odd**.

1. 6 _____

2. 3 _____

3. 2 _____

4. 9 _____

5. 4 _____

6. 10 _____

7. 7 _____

8. 13 _____

9. 11 _____

10. 14 _____

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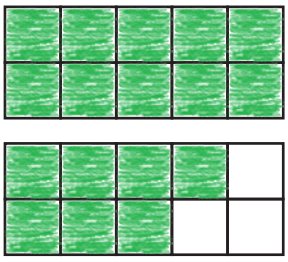
Name _____

On Your Own

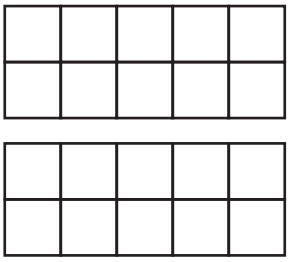
Shade in the ten frames to show the number.
Circle **even** or **odd**.

11. 17



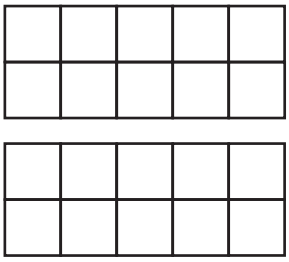
even odd

12. 16



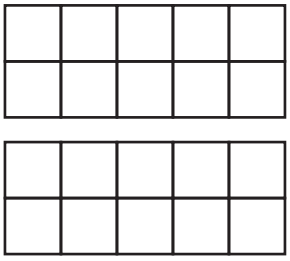
even odd

13. 19



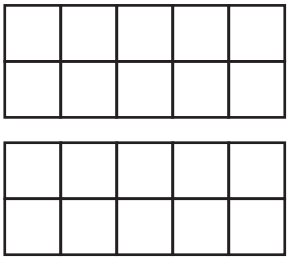
even odd

14. 15



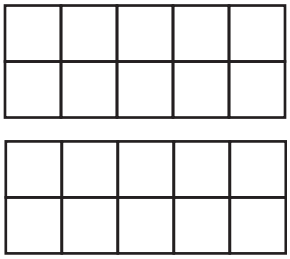
even odd

15. 20



even odd

16. 18

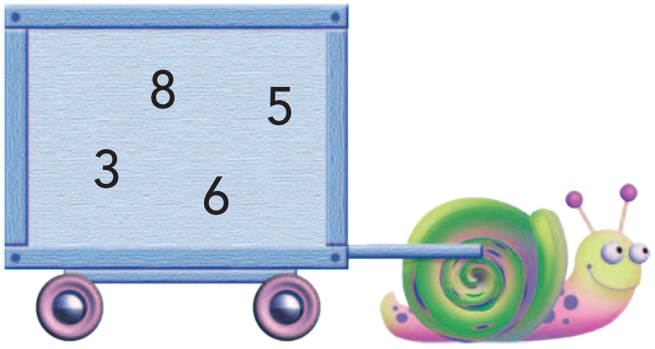


even odd

17. MATHEMATICAL PRACTICE 3 **Make Arguments**

Which two numbers in the box are even numbers?

_____ and _____



Explain how you know that they are even numbers.

_____

_____

_____

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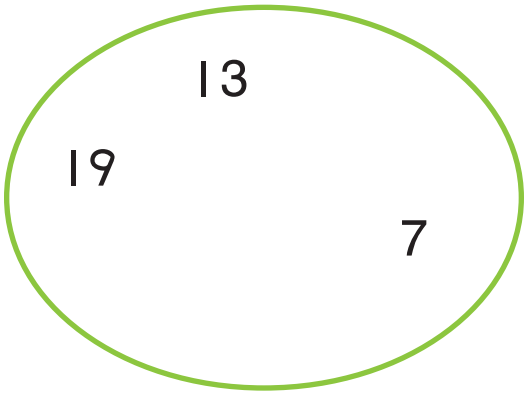
Problem Solving • Applications

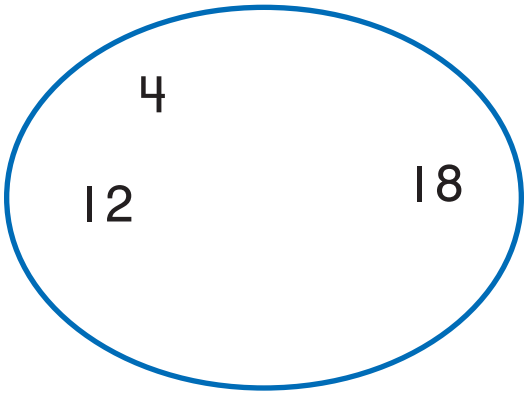
WRITE Math

18. THINK SMARTER Fill in the blanks to describe the groups of numbers. Write **even** or **odd**.

_____ **numbers**



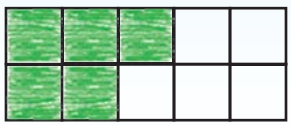
_____ **numbers**



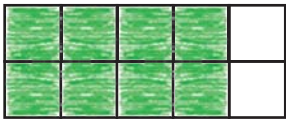
Write each of these numbers inside the correct loop.

5 **6** **10** **11** **24** **25**

19. THINK SMARTER Does each ten frame show an even number? Choose Yes or No.



○ Yes ○ No



○ Yes ○ No

TAKE HOME ACTIVITY • Have your child show you a number, such as 9, using small objects and explain why the number is even or odd.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Represent Even Numbers

Essential Question Why can an even number be shown as the sum of two equal addends?

Operations and Algebraic Thinking—2.OA.3

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw

Hands On

Make pairs with your cubes. Draw to show the cubes. Then write the numbers you say as you count to find the number of cubes.

_____ _____ cubes

FOR THE TEACHER • Give each small group of children a set of 10 to 15 connecting cubes. After children group their cubes into pairs, have them draw a picture of their cubes and write their counting sequence for finding the total number of cubes.

Math Talk **Mathematical Practices**

Do you have an odd number or even number of cubes? **Explain.**

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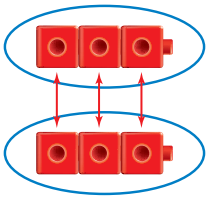
Model and Draw

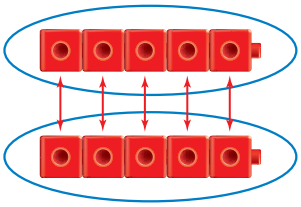
An even number of cubes can be shown as two equal groups.

You can match each cube in the first group with a cube in the second group.

$6 = 3 + 3$



$10 = 5 + 5$



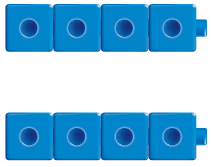
Share and Show

MATH BOARD

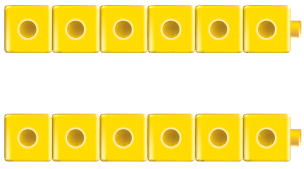
How many cubes are there in all? Complete the addition sentence to show the equal groups.

1. ____ = ____ + ____

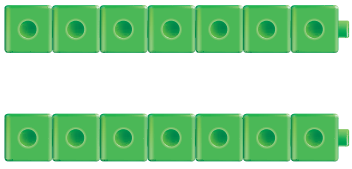
2. ____ = ____ + ____



3. ____ = ____ + ____



4. ____ = ____ + ____



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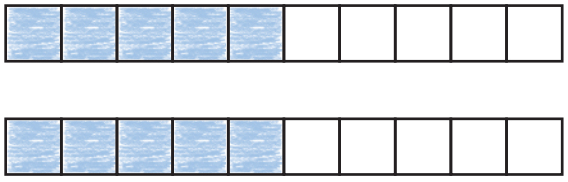
Name _____

On Your Own

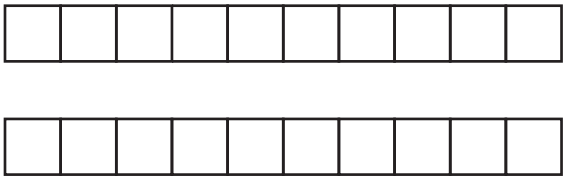
Shade in the frames to show two equal groups for each number. Complete the addition sentence to show the groups.

5. 10



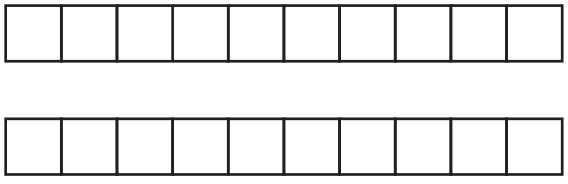
____ = ____ + ____

6. 16



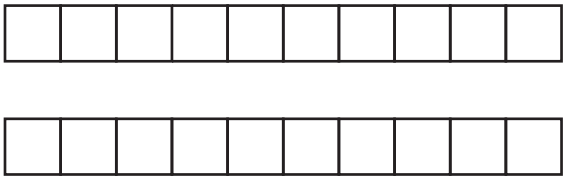
____ = ____ + ____

7. 20



____ = ____ + ____

8. 18



____ = ____ + ____

THINK SMARTER The number 7 is an odd number. Marc showed 7 with this addition sentence. Use Marc's way to show these odd numbers with addition sentences.

$7 = 3 + 3 + 1$

9. 5 = ____ + ____ + ____

10. 11 = ____ + ____ + ____

11. 9 = ____ + ____ + ____

12. 13 = ____ + ____ + ____

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

13. MATHEMATICAL PRACTICE 2 **Use Reasoning**

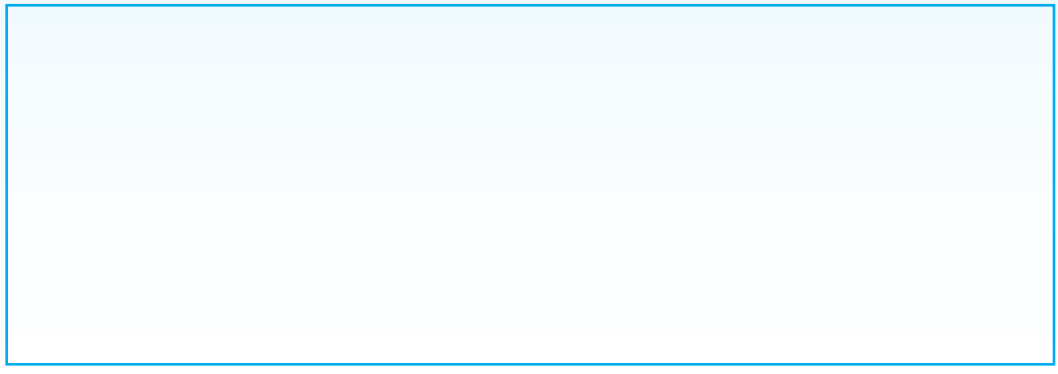
Jacob and Lucas each have the same number of shells. Together they have 16 shells. How many shells do Jacob and Lucas each have?

Jacob: _____ shells

Lucas: _____ shells

Personal Math Trainer

14. THINK SMARTER + Choose an even number between 10 and 19. Draw a picture and then write a sentence to explain why it is an even number.



TAKE HOME ACTIVITY • Have your child explain what he or she learned in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Understand Place Value

Essential Question How do you know the value of a digit?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Write the numbers. Then choose a way to show the numbers.

Tens	Ones

Tens	Ones

Math Talk **Mathematical Practices**

Explain why the value of 5 is different in the two numbers.

FOR THE TEACHER • Read the following problem. Have children write the numbers and describe how they chose to represent them. Gabriel collects baseball cards. The number of cards that he has is written with a 2 and a 5. How many cards might he have?

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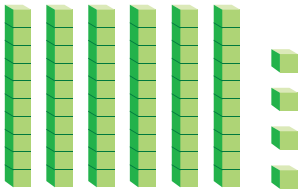
Model and Draw

0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are **digits**.
In a 2-digit number, you know the value of a digit by its place.



64

Tens	Ones
6	4

6 tens 4 ones

The digit **6** is in the tens place. It tells you there are 6 tens, or 60.

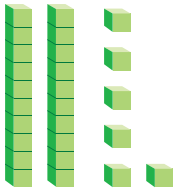
The digit **4** is in the ones place. It tells you there are 4 ones, or 4.

Share and Show

MATH BOARD

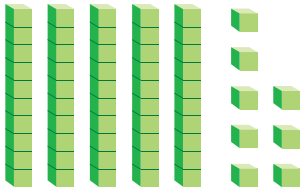
Circle the value of the red digit.

1. 26



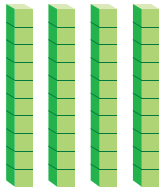
60 (6)

2. 58



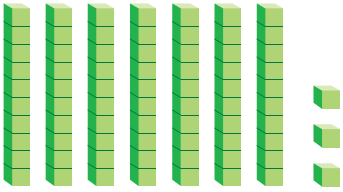
5 50

3. 40



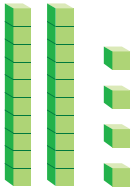
40 4

4. 73



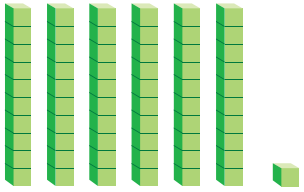
30 3

5. 24



2 20

6. 61



1 10

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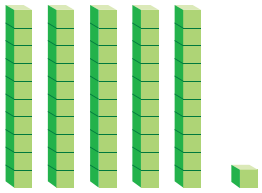
Name _____

On Your Own

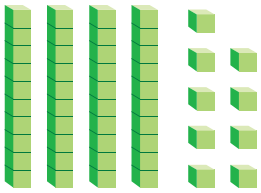
Circle the value of the red digit.

7. 5**1**



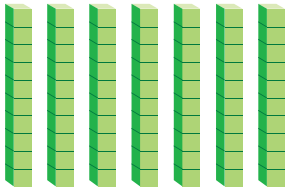
1 10

8. 4**9**



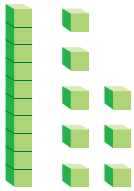
90 9

9. **7**0



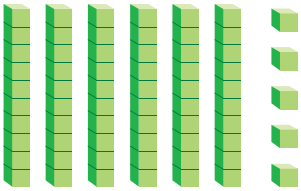
7 70

10. **1**8



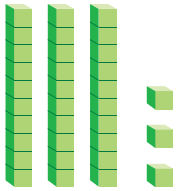
1 10

11. 6**5**



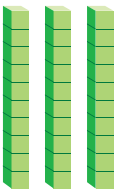
50 5

12. 3**3**



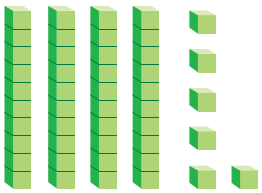
30 3

13. 3**0**



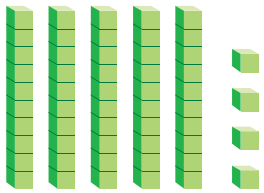
10 0

14. 4**6**



6 60

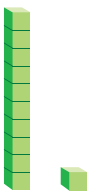
15. 5**4**



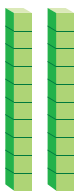
50 5

16. THINK SMARTER Look at the digits of the numbers. Draw quick pictures for the missing blocks.

47



52



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Problem Solving • Applications

WRITE Math

Write the 2-digit number that matches the clues.

17. My number has 8 tens.

The digit in the ones place is greater than the digit in the tens place.

My number is _____.

18. In my number, the digit in the ones place is double the digit in the tens place.

The sum of the digits is 3.

My number is _____.

19. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

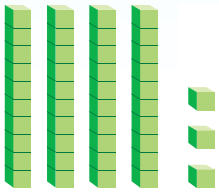
In my number, both digits are even numbers.

The digit in the tens place is less than the digit in the ones place.

The sum of the digits is 6.

My number is _____.

20. THINK SMARTER What is the value of the digit 4 in the number 43?



TAKE HOME ACTIVITY • Write the number 56. Have your child tell you which digit is in the tens place, which digit is in the ones place, and the value of each digit.

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Name _____

Expanded Form

Essential Question How do you describe a 2-digit number as tens and ones?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.4

Listen Real World Hands On

Use to model each number.

Tens	Ones

Math Talk **Mathematical Practices**

Explain how you know how many tens and ones are in the number 29.

FOR THE TEACHER • After you read the following problem, write 38 on the board. Have children model the number. Emmanuel put 38 stickers on his paper. How can you model 38 with blocks? Continue the activity for 83 and 77.

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Model and Draw

What does 23 mean?

Tens	Ones

The 2 in 23 has a value of 2 tens, or 20.
The 3 in 23 has a value of 3 ones, or 3.

2 tens 3 ones

20 + 3

Share and Show

MATH BOARD

Draw a quick picture to show the number.
Describe the number in two ways.

1. 37

_____ tens _____ ones

_____ + _____

2. 54

_____ tens _____ ones

_____ + _____

3. 16

_____ ten _____ ones

_____ + _____

4. 60

_____ tens _____ ones

_____ + _____

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Name _____

On Your Own

Draw a quick picture to show the number.
Describe the number in two ways.

5. 48

_____ tens _____ ones

_____ + _____

6. 31

_____ tens _____ one

_____ + _____

7. 59

_____ tens _____ ones

_____ + _____

8. 75

_____ tens _____ ones

_____ + _____

Solve. Write or draw to explain.

9. THINK SMARTER Eric has 4 bags of 10 marbles and 6 single marbles. How many marbles does Eric have?

_____ marbles

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Problem Solving • Applications

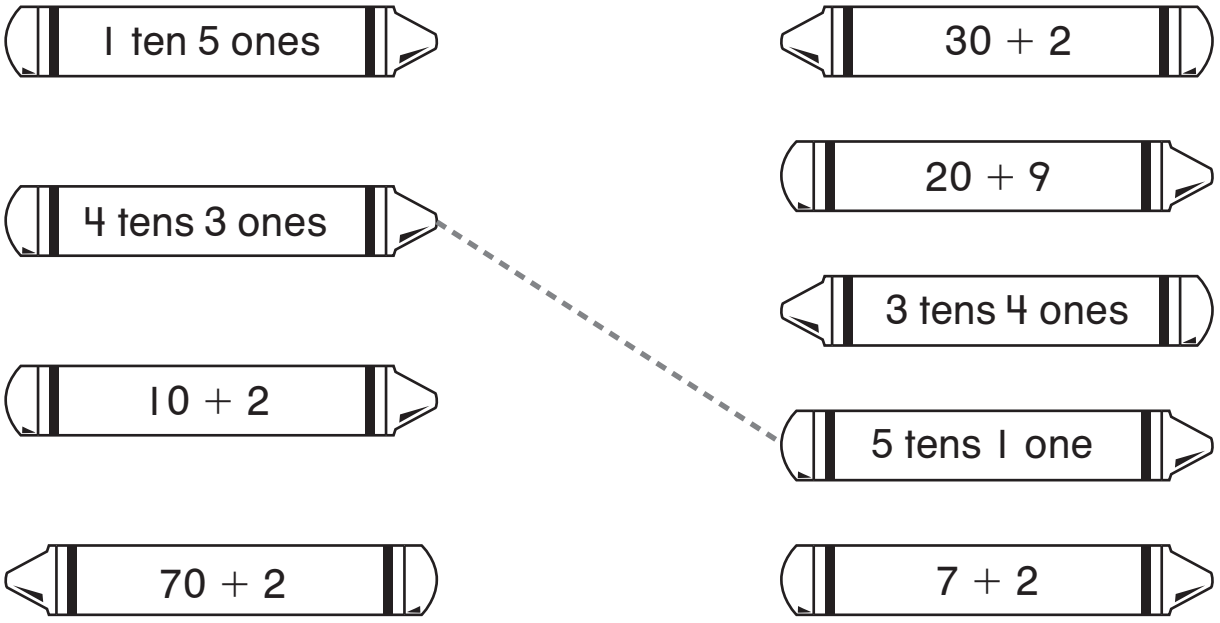
WRITE Math

MATHEMATICAL PRACTICE 6

Make Connections

Use crayons. Follow the steps.

10. Start at 51 and draw a green line to 43.
11. Draw a blue line from 43 to 34.
12. Draw a red line from 34 to 29.
13. Then draw a yellow line from 29 to 72.



14. THINK SMARTER Draw a picture to show the number 26. Describe the number 26 in two ways.

_____ tens _____ ones

_____ + _____

TAKE HOME ACTIVITY • Ask your child to write 89 as tens plus ones. Then have him or her write 25 as tens plus ones.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Different Ways to Write Numbers

Essential Question What are different ways to write a 2-digit number?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Write the number. Then write it as tens and ones.

_____ tens _____ ones

_____ + _____

_____ + _____

_____ tens _____ ones

Math Talk **Mathematical Practices**

In 44, do both digits have the same value? **Explain.**

FOR THE TEACHER • Read the following problem. Taryn counted 53 books on the table. How many tens and ones are in 53? Continue the activity with the numbers 78, 35, and 40.

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Model and Draw

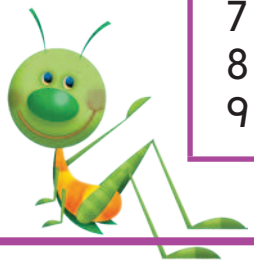
A number can be written in different ways.

fifty-nine

5 tens 9 ones

50 + 9

59



ones	teen words	tens
0 zero	11 eleven	10 ten
1 one	12 twelve	20 twenty
2 two	13 thirteen	30 thirty
3 three	14 fourteen	40 forty
4 four	15 fifteen	50 fifty
5 five	16 sixteen	60 sixty
6 six	17 seventeen	70 seventy
7 seven	18 eighteen	80 eighty
8 eight	19 nineteen	90 ninety
9 nine		

Share and Show

MATH BOARD

Look at the examples above.
Then write the number another way.

1. thirty-two

_____

2. 20 + 7

_____

3. 63

_____ tens _____ ones

4. ninety-five

_____ + _____

5. 5 tens 1 one

_____

6. seventy-six

_____ + _____

7. twenty-eight

_____ tens _____ ones

8. 8 tens 0 ones

_____

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Name _____

On Your Own

Write the number another way.

9. 2 tens 4 ones

_____

10. thirty

_____ tens _____ ones

11. eighty-five

_____

12. 54

_____ + _____

13. twelve

_____ + _____

14. 90 + 9

_____ tens _____ ones

15. 7 tens 8 ones

_____

16. 39

_____

THINK SMARTER Fill in the blanks to make the sentence true.

17. Sixty-seven is the same as _____ tens _____ ones.

18. 4 tens _____ ones is the same as _____ + _____.

19. 20 + _____ is the same as _____.

TAKE HOME ACTIVITY • Write 20 + 6 on a sheet of paper. Have your child write the 2-digit number. Repeat for 4 tens 9 ones.

FOR MORE PRACTICE: Standards Practice Book

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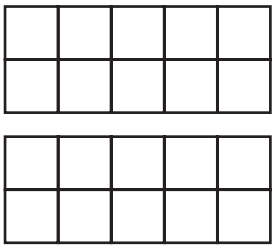
Name _____

Mid-Chapter Checkpoint

Concepts and Skills

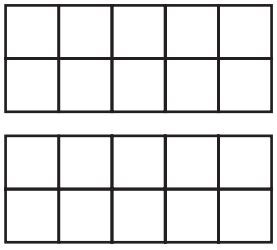
Shade in the ten frames to show the number.
Circle **even** or **odd**. (2.OA.3)

1. 15



even odd

2. 18



even odd

Draw a quick picture to show the number.
Describe the number in two ways. (2.NBT.3)

3. 35

_____ tens _____ ones

_____ + _____

4. 53

_____ tens _____ ones

_____ + _____

5. THINK SMARTER Write the number 42 in another way. (2.NBT.3)

_____

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Name _____

Algebra • Different Names for Numbers

Essential Question How can you show the value of a number in different ways?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES

MP.6, MP.7, MP.8

Listen and Draw

Use to show the number different ways.
Record the tens and ones.

_____ tens _____ ones

_____ tens _____ ones

_____ tens _____ ones

Math Talk **Mathematical Practices**

Describe how you made the different models for 26.

FOR THE TEACHER • Read the following problem. Syed has 26 rocks. What are some different ways to show 26 with blocks? Have children start with 26 ones blocks. Then have them use base-ten blocks and record the number of tens and ones in each of their models.

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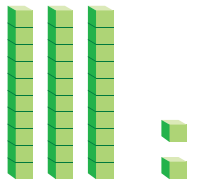
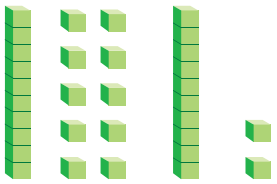
Model and Draw

These are some different ways to show 32.



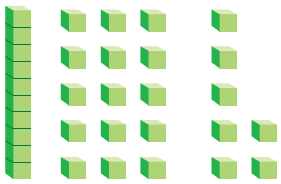
3 tens 2 ones

30 + 2



2 tens 12 ones

20 + 12



1 ten 22 ones

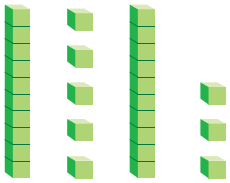
10 + 22

Share and Show

MATH BOARD

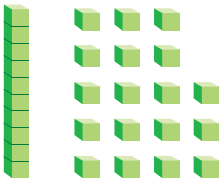
The blocks show the numbers in different ways. Describe the blocks in two ways.

1. 28



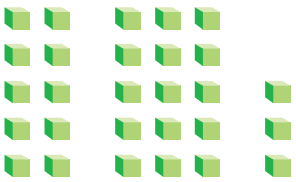
____ tens ____ ones

____ + ____



____ ten ____ ones

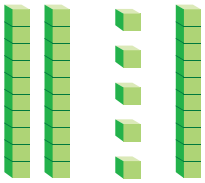
____ + ____



____ tens ____ ones

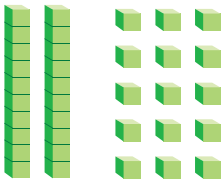
____ + ____

2. 35



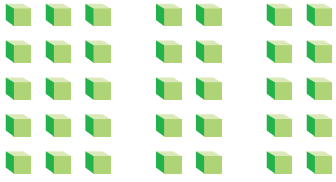
____ tens ____ ones

____ + ____



____ tens ____ ones

____ + ____



____ tens ____ ones

____ + ____

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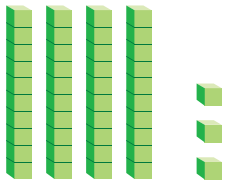
Name _____

On Your Own

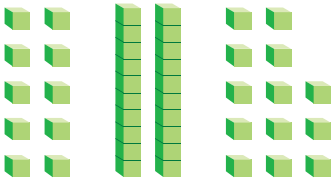
The blocks show the numbers in different ways.
Describe the blocks in two ways.

3. 43



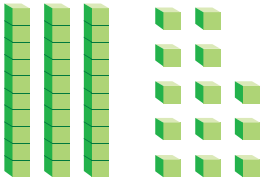
_____ tens _____ ones

_____ + _____



_____ tens _____ ones

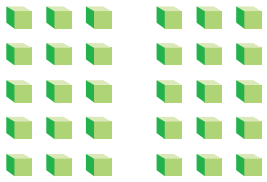
_____ + _____



_____ tens _____ ones

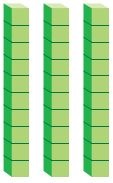
_____ + _____

4. 30



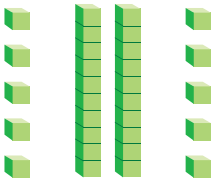
_____ tens _____ ones

_____ + _____



_____ tens _____ ones

_____ + _____



_____ tens _____ ones

_____ + _____

5. THINK SMARTER I have 2 bags of 10 oranges.
I also have 24 single oranges.
How many oranges do I have?

I have _____ oranges.

Draw a quick picture to show the number.

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Problem Solving • Applications

WRITE Math

6. MATHEMATICAL PRACTICE 6 **Make Connections** Fill in the blanks to make each sentence true.

_____ tens _____ ones is the same as 90 + 3.

2 tens 18 ones is the same as _____ + _____.

5 tens _____ ones is the same as _____ + 17.

7. GO DEEPER A number has the digit 4 in the ones place and the digit 7 in the tens place. Which of these is another way to write this number? Circle them.

40 + 7 70 + 4 seventy-four

4 tens 34 ones 4 + 7 4 tens 7 ones

8. THINK SMARTER Which of these is another way to show the number 42? Choose Yes or No for each.

1 ten 42 ones	○ Yes	○ No
30 + 12	○ Yes	○ No
2 tens 22 ones	○ Yes	○ No
3 tens 2 ones	○ Yes	○ No

TAKE HOME ACTIVITY • Write the number 45. Have your child write or draw two ways to show this number.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Tens and Ones

Essential Question How does finding a pattern help you find all the ways to show a number with tens and ones?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.1, MP.4, MP.7

Gail needs to buy 32 pencils. She can buy single pencils or boxes of 10 pencils. What are all of the different ways Gail can buy 32 pencils?

Unlock the Problem

Real World

What do I need to find?

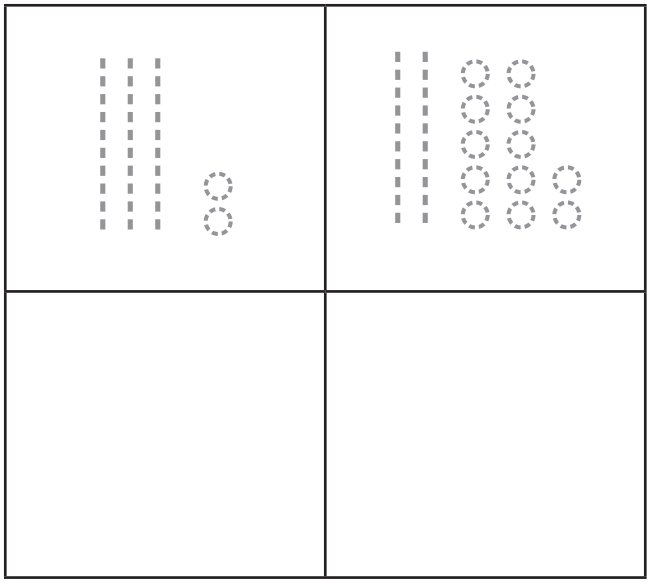
ways Gail can buy 32 pencils

What information do I need to use?

She can buy single pencils or boxes of 10 pencils.

Show how to solve the problem.
Draw quick pictures for 32. Complete the chart.

Boxes of 10 pencils	Single pencils
3	2
2	12
1	
0	



HOME CONNECTION • Your child found a pattern in the different combinations of tens and ones. Using a pattern helps to make an organized list.

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Try Another Problem

- What do I need to find?
- What information do I need to use?

Find a pattern to solve.

1. Sara has 36 crayons. She can pack them in boxes of 10 crayons or as single crayons. What are all of the ways Sara can pack the crayons?

Boxes of 10 crayons	Single crayons
3	6

2. Mr. Winter is putting away 48 chairs. He can put away the chairs in stacks of 10 or as single chairs. What are all of the ways Mr. Winter can put away the chairs?

Stacks of 10 chairs	Single chairs
4	8

Math Talk **Mathematical Practices**

Describe the pattern that helped you solve Exercise 2.

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Name _____

Share and Show

MATH BOARD

Find a pattern to solve.

3. Philip is putting 25 markers into a bag. He can put the markers in the bag as bundles of 10 or as single markers. What are all of the ways Philip can put the markers in the bag?

Bundles of 10 markers	Single markers

4. Stickers are sold in packs of 10 stickers or as single stickers. Miss Allen wants to buy 43 stickers. What are all of the ways she can buy the stickers?

Packs of 10 stickers	Single stickers

5. THINK SMARTER Devin had 32 baseball cards. He gets 7 more cards. He can pack them in boxes of 10 cards or as single cards. What are all of the ways Devin can sort the cards?

Boxes of 10 cards	Single cards

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On Your Own

Solve. Write or draw to explain.

6. MATHEMATICAL PRACTICE 7 **Look for Structure**

Lee can pack her toy cars in boxes of 10 cars or as single cars. Which of these is a way that she can pack her 24 toy cars? Circle your answer.

4 boxes of 10 cars and 2 single cars	1 box of 10 cars and 24 single cars	2 boxes of 10 cars and 4 single cars

Personal Math Trainer

7. THINK SMARTER + Mr. Link needs 30 cups. He can buy them in packs of 10 cups or as single cups. What are all of the different ways he can buy the cups? Find a pattern to solve.

Packs of 10 cups	Single cups

Choose two of the ways from the chart. Explain how these two ways show the same number of cups.

TAKE HOME ACTIVITY • Have your child explain how he or she solved one of the exercises in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Counting Patterns Within 100

Essential Question How do you count by 1s, 5s, and 10s with numbers less than 100?

Number and Operations in Base Ten—2.NBT.2

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Look at the hundred chart. Write the missing numbers.

1	2	3		5	6		8		10
11		13	14	15	16		18	19	20
	22	23	24		26	27	28	29	30
31	32		34	35	36		38	39	
41		43	44	45	46	47		49	50
51		53		55		57		59	60
	62		64	65	66	67	68		70
71	72	73	74		76		78	79	
81		83		85	86	87	88	89	90
	92		94	95	96		98		100

Math Talk **Mathematical Practices**

Describe some different ways to find the missing numbers in the chart.

FOR THE TEACHER • Have children complete the hundred chart to review counting to 100.

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Model and Draw

You can count on by different amounts.
You can start counting with different numbers.

Count by ones.

1, 2, 3, 4, 5, 6, ____, ____

29, 30, 31, 32, 33, ____, ____, ____

Count by fives.

5, 10, 15, 20, ____, ____, ____, ____

50, 55, 60, 65, ____, ____, ____, ____

Share and Show

MATH BOARD

Count by ones.

1. 15, 16, 17, _____, _____, _____, _____, _____

Count by fives.

2. 15, 20, 25, _____, _____, _____, _____, _____

3. 60, 65, _____, _____, _____, _____, _____

Count by tens.

4. 10, 20, _____, _____, _____, _____, _____

5. 30, 40, _____, _____, _____, _____, _____

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Name _____

On Your Own

Count by ones.

6. 77, 78, _____, _____, _____, _____, _____

7. 52, _____, _____, _____, _____, _____, _____

Count by fives.

8. 35, 40, _____, _____, _____, _____, _____

9. 70, _____, _____, _____, _____, _____, _____

Count by tens.

10. 20, 30, _____, _____, _____, _____, _____

11. THINK SMARTER Dinesh counts by fives to 100.
Gwen counts by tens to 100.
Who will say more numbers? Explain.

_____

_____

_____

_____

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Problem Solving • Applications Real World

WRITE Math

MATHEMATICAL PRACTICE 1 Analyze

12. Andy counts by ones. He starts at 29 and stops at 45. Which of these numbers will he say? Circle them.

31 20 47 35 46 40 39

13. Camila counts by fives. She starts at 5 and stops at 50. Which of these numbers will she say? Circle them.

55 25 6 40 18 10 45

14. THINK SMARTER Grace starts at the number 40 and counts three different ways. Write to show how Grace counts.

Count by ones. 40, _____, _____, _____, _____, _____, _____

Count by fives. 40, _____, _____, _____, _____, _____, _____

Count by tens. 40, _____, _____, _____, _____, _____, _____

TAKE HOME ACTIVITY • With your child, practice counting by ones to 100, starting with numbers such as 58 or 62.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Counting Patterns Within 1,000

Essential Question How do you count by 1s, 5s, 10s, and 100s with numbers less than 1,000?

Number and Operations in Base Ten—2.NBT.2

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Write the missing numbers in the chart.

401		403	404		406	407	408		410
411				415	416	417	418	419	
421	422	423	424	425		427	428	429	430
	432		434	435	436	437	438		
441	442	443	444		446	447		449	450
			454	455	456	457	458	459	460
461	462						468	469	470
	472	473	474	475	476	477		479	480
481	482		484	485	486				490
	492	493		495	496	497	498		

Math Talk **Mathematical Practices**

What are the next three numbers that follow the counting in this chart? **Explain** how you know.

FOR THE TEACHER • Have children complete the number chart to practice counting with 3-digit numbers.

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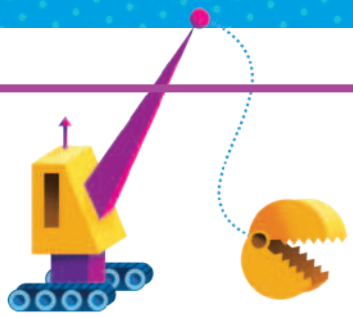
Model and Draw



Counting can be done in different ways.
Use patterns to count on.

Count by fives.

95, 100, 105, 110, 115, _____, _____

140, 145, 150, 155, _____, _____, _____

Count by tens.

300, 310, 320, _____, _____, _____, _____

470, 480, 490, _____, _____, _____, _____

Share and Show

Count by fives.

1. 745, 750, 755, _____, _____, _____, _____

Count by tens.

2. 520, 530, 540, _____, _____, _____, _____

3. 600, 610, _____, _____, _____, _____, _____

Count by hundreds.

4. 100, 200, _____, _____, _____, _____, _____

5. 300, 400, _____, _____, _____, _____, _____

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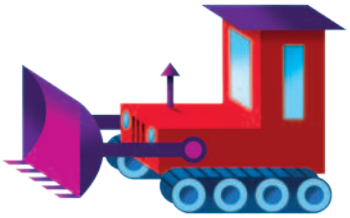
Name _____



On Your Own

Count by fives.

6. 215, 220, 225, _____, _____, _____, _____

7. 905, 910, _____, _____, _____, _____, _____

8. 485, _____, _____, _____, _____, _____

Count by tens.

9. 730, 740, 750, _____, _____, _____, _____

10. 160, 170, _____, _____, _____, _____, _____

11. 850, _____, _____, _____, _____, _____

Count by hundreds.

12. 200, 300, _____, _____, _____, _____, _____

13. THINK SMARTER Martin starts at 300 and counts by fives to 420. What are the last 6 numbers Martin will say?

_____, _____, _____, _____, _____, _____

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 7 **Look for a Pattern**

14. Lisa counts by fives. She starts at 120 and stops at 175. Which of these numbers will she say? Circle them.

170 151 135 155 200 180

15. George counts by tens. He starts at 750 and stops at 830. Which of these numbers will he say? Circle them.

755 690 780 760 795 810

16. THINK SMARTER Carl counts by hundreds. Which of these show ways that Carl could count? Choose Yes or No for each.

100, 110, 120, 130, 140	○ Yes	○ No
100, 200, 300, 400, 500	○ Yes	○ No
500, 600, 700, 800, 900	○ Yes	○ No
300, 305, 310, 315, 320	○ Yes	○ No

TAKE HOME ACTIVITY • With your child, count by fives from 150 to 200.

FOR MORE PRACTICE: Standards Practice Book

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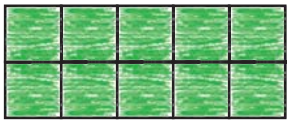
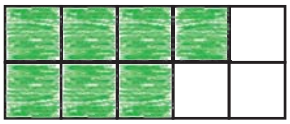
Name _____

Chapter 1 Review/Test

1. Does the ten frame show an even number? Choose Yes or No.



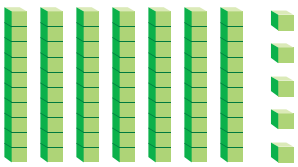
○ Yes ○ No



○ Yes ○ No

2. Write an even number between 7 and 16. Draw a picture and then write a sentence to explain why it is an odd number.

3. What is the value of the digit 5 in the number 75?



_____

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4. Ted has an even number of yellow markers and an odd number of green markers. Choose all the groups of markers that could belong to Ted.

- ○ 8 yellow markers and 3 green markers
- ○ 3 yellow markers and 6 green markers
- ○ 4 yellow markers and 2 green markers
- ○ 6 yellow markers and 7 green markers

5. Jeff starts at 190 and counts by tens. What are the next 6 numbers Jeff will say?

190, _____, _____, _____, _____, _____, _____

6. Megan counts by ones to 10. Lee counts by fives to 20. Who will say more numbers? Explain.

_____

_____

_____

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Name _____

7. Draw a picture to show the number 43.

Describe the number 43 in two ways.

4	tens		4	ones
3			3	

_____ + _____

8. Jo lives on Maple Road. Her address has the digit 2 in the ones place and the digit 4 in the tens place. What is Jo's address?

_____ Maple Road

9. Do the numbers show counting by fives? Choose Yes or No.

76, 77, 78, 79, 80	○ Yes	○ No
20, 30, 40, 50, 60	○ Yes	○ No
70, 75, 80, 85, 90	○ Yes	○ No
35, 40, 45, 50, 55	○ Yes	○ No

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10. Mrs. Payne needs 35 notepads. She can buy them in packs of 10 notepads or as single pads. What are all the different ways Mrs. Payne can buy the notepads? Find a pattern to solve.

Packs of 10 notepads	Single notepads

Choose two of the ways from the chart. Explain how these two ways show the same number of notepads.

11. Ann has a favorite number. It has a digit less than 4 in the tens place. It has a digit greater than 6 in the ones place. Could the number be Ann's number? Choose Yes or No.

30 + 9	○ Yes	○ No
sixty-seven	○ Yes	○ No
2 tens 8 ones	○ Yes	○ No

Write another number that could be Ann's favorite. _____

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Chapter 2

Numbers to 1,000

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Curious about Math

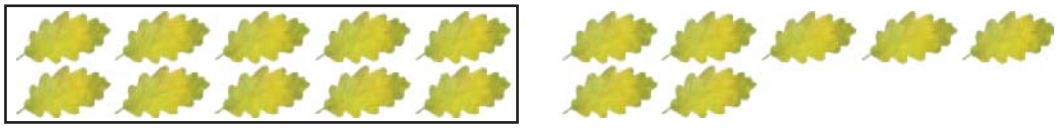
The White House has 412 doors and 147 windows. Look at the digit 1 in each of these numbers. How do the values of these digits compare?

Name _____

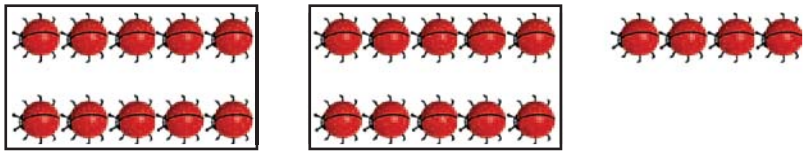
Show What You Know

Identify Numbers to 30

Write how many.

1. 

_____ leaves

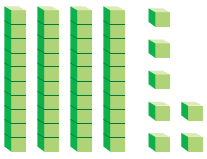
2. 

_____ bugs

Place Value: 2-Digit Numbers

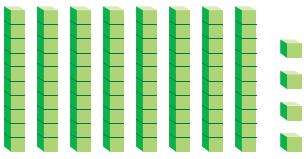
Circle the value of the red digit.

3. 47



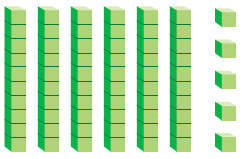
40 4

4. 84



4 40

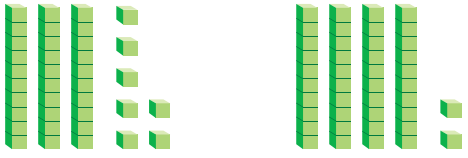
5. 65



6 60

Compare 2-Digit Numbers Using Symbols

Compare. Write >, <, or =.

6. 

37 ◯ 42

7.

40 ◯ 33

This page checks understanding of important skills needed for success in Chapter 2.

Personal Math Trainer
Online Assessment and Intervention

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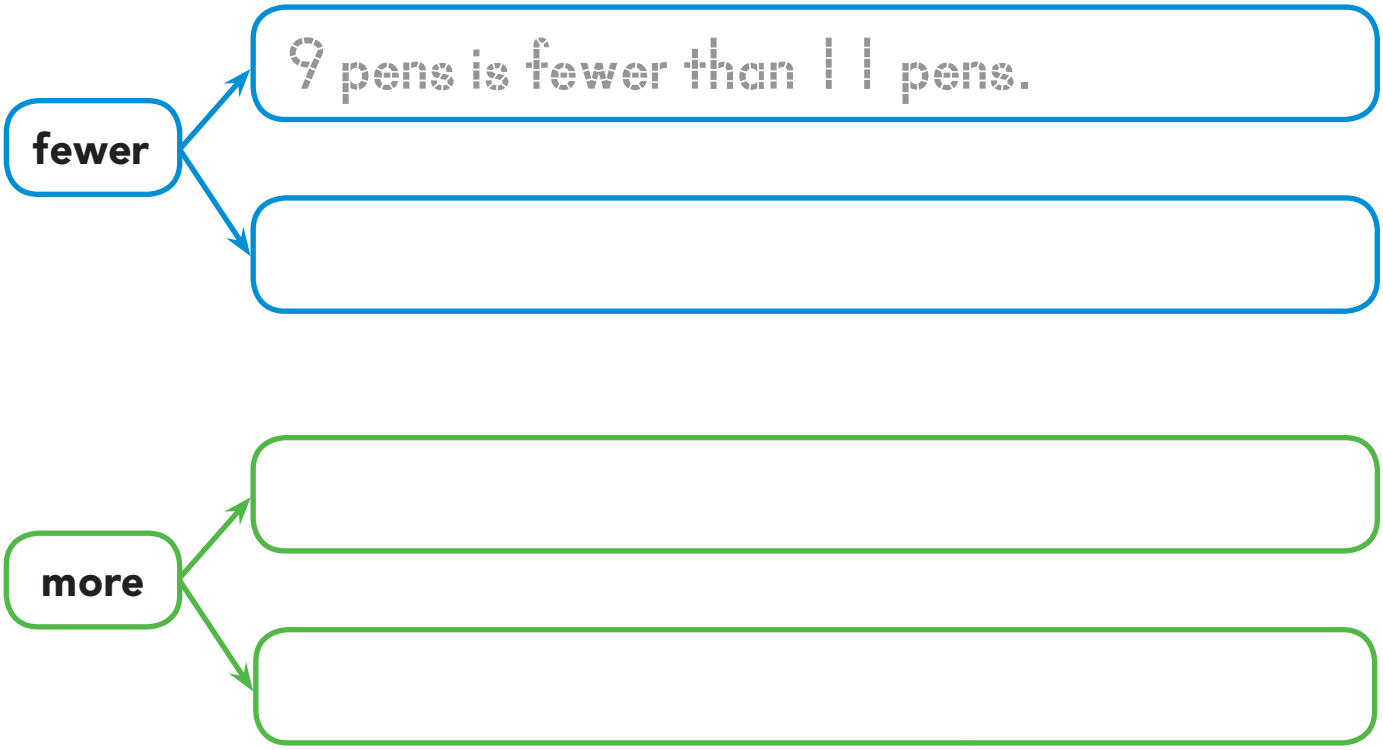
Name _____

Vocabulary Builder

Review Words
more
fewer
digits
tens
ones

Visualize It

Fill in the boxes of the graphic organizer.
Write sentences using **fewer** and **more.**



Understand Vocabulary

Use the review words. Complete the sentences.

1. 3 and 9 are _____ in the number 39.
2. 7 is in the _____ place in the number 87.
3. 8 is in the _____ place in the number 87.

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Game

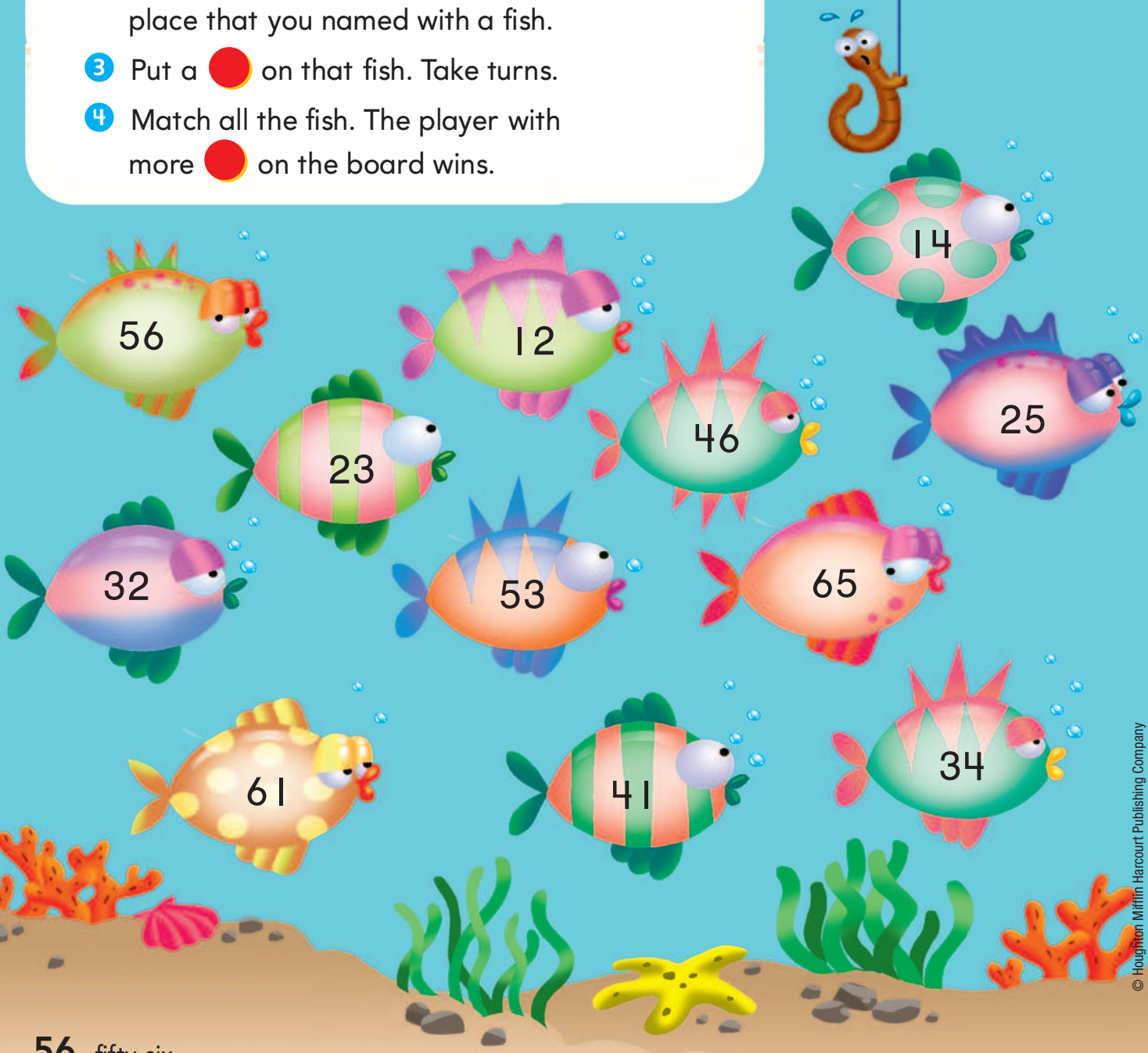
Fish for Digits

Materials

- 12 red counters
- 12 yellow counters
- 1 number cube

Play with a partner.

1. Name a place for a digit. You can say **tens place** or **ones place**. Toss the number cube.
2. Match the number on the number cube and the place that you named with a fish.
3. Put a red counter on that fish. Take turns.
4. Match all the fish. The player with more red counters on the board wins.



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Name _____

Group Tens as Hundreds

Essential Question How do you group tens as hundreds?

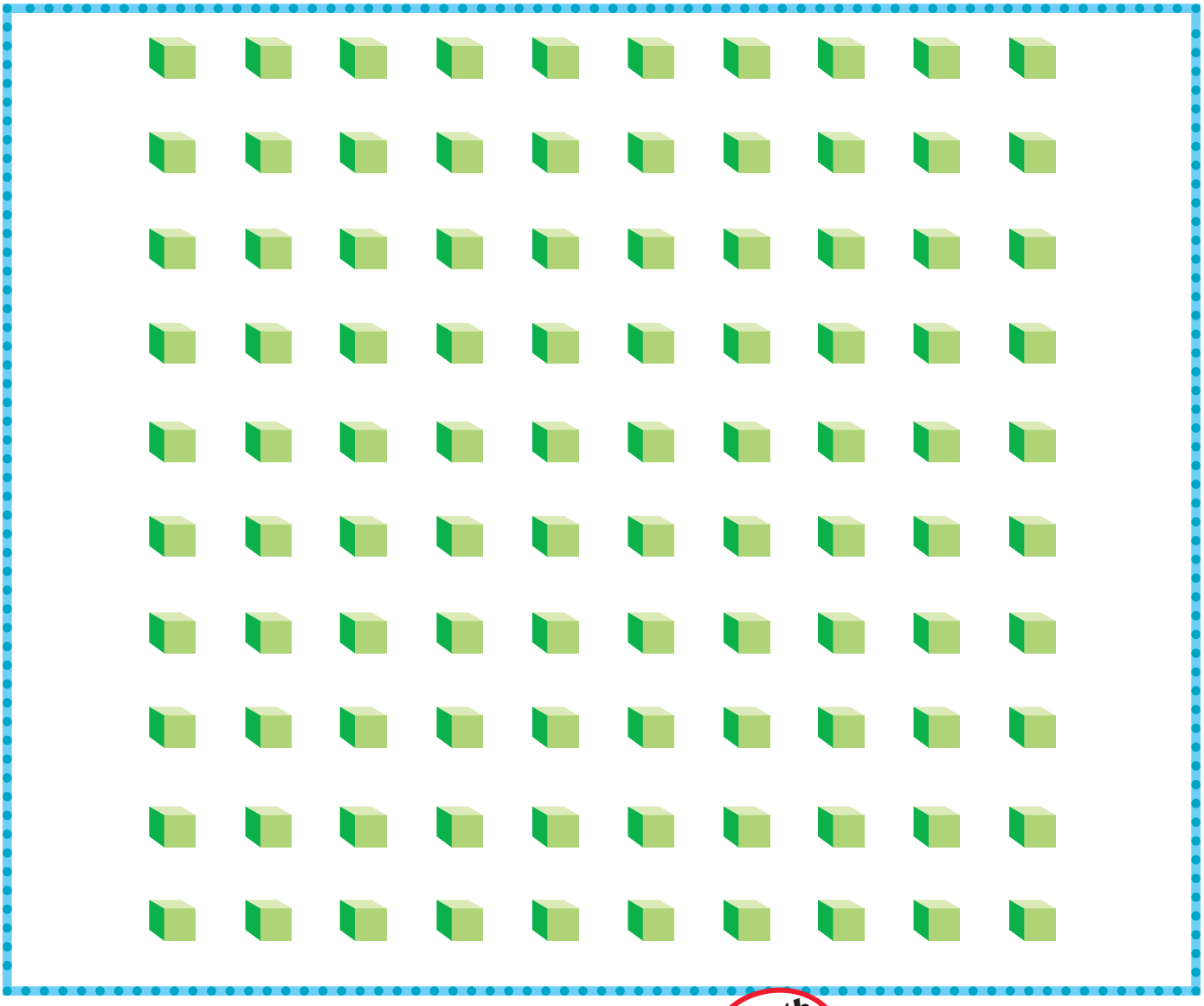
Number and Operations in Base Ten—2.NBT.1.a, 2.NBT.1.b

MATHEMATICAL PRACTICES
MP.6, MP.7, MP.8

Listen and Draw

Real World

Circle groups of ten. Count the groups of ten.



Math Talk **Mathematical Practices**

How many ones are in 3 tens? How many ones are in 7 tens? **Explain.**

FOR THE TEACHER • Read the following problem and have children group ones blocks to solve. Marco has 100 cards. How many groups of 10 cards can he make?

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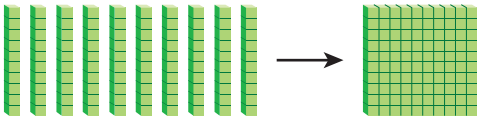
Model and Draw

10 tens is the same as 1 **hundred**.



10 tens

1 hundred

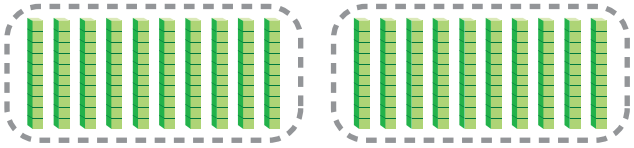
100

Share and Show

MATH BOARD

Write how many tens. Circle groups of 10 tens.
Write how many hundreds. Write the number.

1.

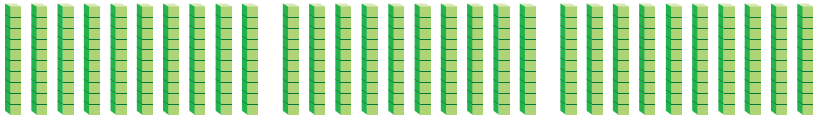


20 tens

_____ hundreds

_____

2.

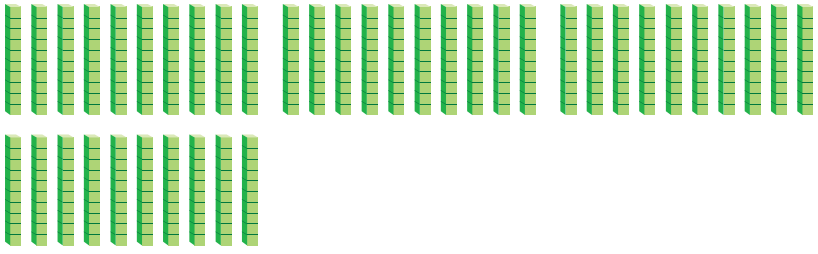


_____ tens

_____ hundreds

_____

3.

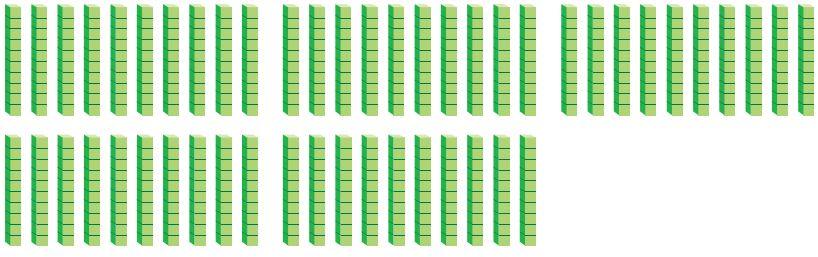


_____ tens

_____ hundreds

_____

4.



_____ tens

_____ hundreds

_____

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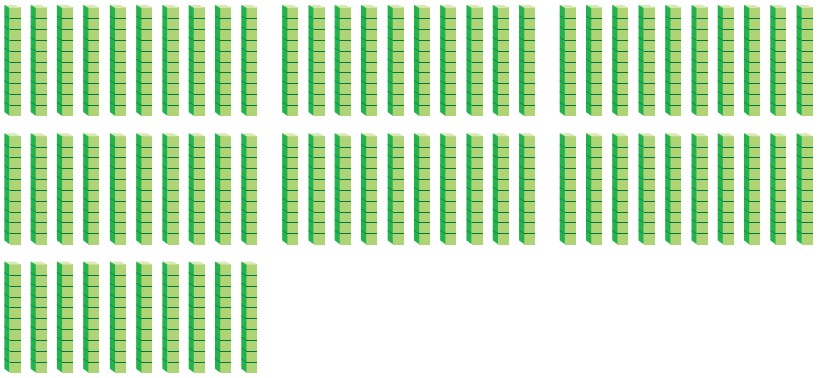
Name _____

On Your Own

Write how many tens. Circle groups of 10 tens.
Write how many hundreds. Write the number.

5.

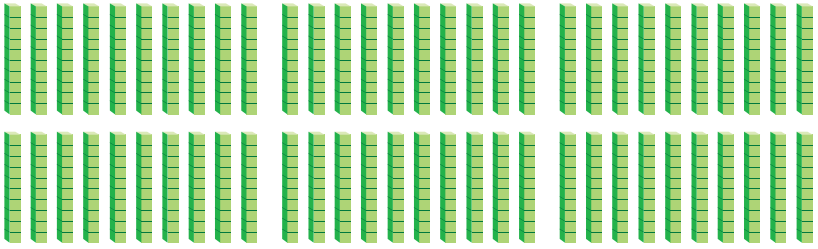


_____ tens

_____ hundreds

_____

6.

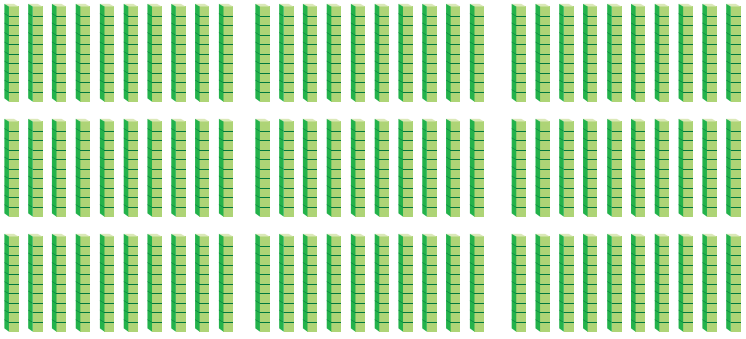


_____ tens

_____ hundreds

_____

7.



_____ tens

_____ hundreds

_____

8. THINK SMARTER Wally has 400 cards. How many stacks of 10 cards can he make?

_____ stacks of 10 cards

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

9. Mrs. Martin has 80 boxes of paper clips. There are 10 paper clips in each box. How many paper clips does she have?

_____ paper clips

10. THINK SMARTER Pencils are sold in boxes of 10 pencils. Mr. Lee needs 100 pencils. He has 40 pencils. How many boxes of 10 pencils should he buy?

_____ boxes of 10 pencils

Draw a picture to explain your answer.

TAKE HOME ACTIVITY • Ask your child to draw a quick picture of 20 tens and then tell you how many hundreds there are.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Explore 3-Digit Numbers

Essential Question How do you write a 3-digit number for a group of tens?

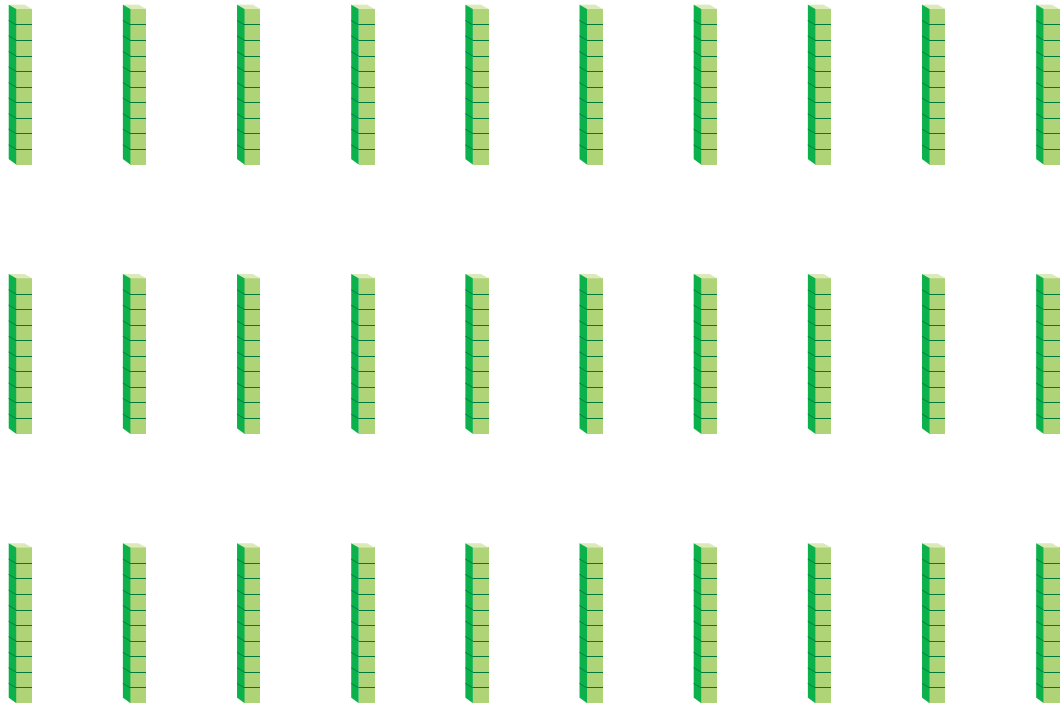
Number and Operations in Base Ten—2.NBT.1

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw

Real World

Circle groups of blocks to show hundreds.
Count the hundreds.



_____ hundreds

_____ straws

FOR THE TEACHER • Read the following problem and have children circle groups of tens blocks to solve. Mrs. Rodriguez has 30 bundles of straws. There are 10 straws in each bundle. How many straws does Mrs. Rodriguez have?

Math Talk **Mathematical Practices**

Describe how the number of hundreds would be different if there were 10 more bundles of straws.

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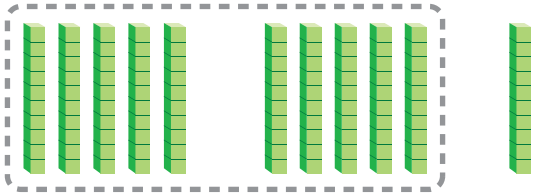
Model and Draw

What number is shown with 11 tens?



11 tens

1 hundred 1 ten

110

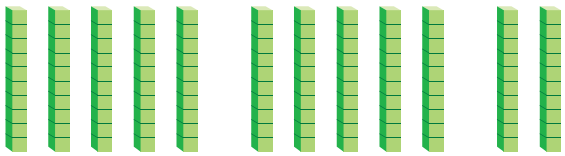
In the number 110, there is a 1 in the hundreds place and a 1 in the tens place.

Share and Show

MATH BOARD

Circle tens to make 1 hundred. Write the number in different ways.

1.

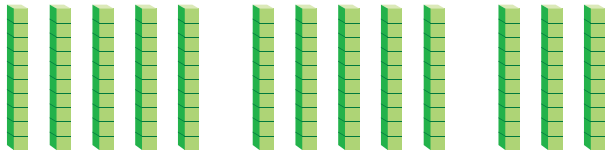


____ tens

____ hundred ____ tens

_____

2.

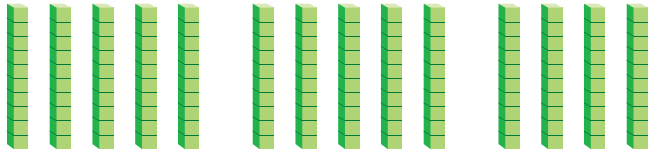


____ tens

____ hundred ____ tens

_____

3.



____ tens

____ hundred ____ tens

_____

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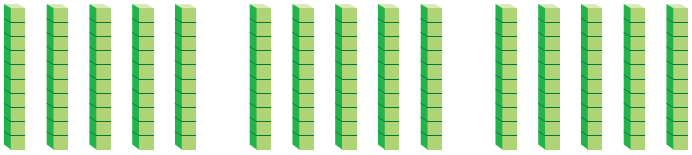
Name _____

On Your Own

Circle tens to make 1 hundred. Write the number in different ways.

4.

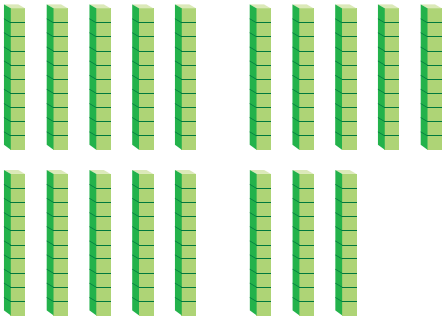


_____ tens

_____ hundred _____ tens

_____

5.

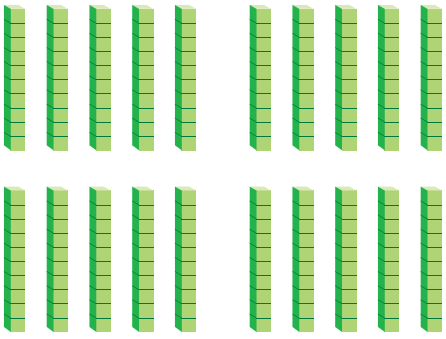


_____ tens

_____ hundred _____ tens

_____

6.



_____ tens

_____ hundreds _____ tens

_____

7. THINK SMARTER Kendra has 120 stickers. 10 stickers fill a page. How many pages can she fill?

_____ pages

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

8. MATHEMATICAL PRACTICE 1 **Analyze** There are 16 boxes of crackers. There are 10 crackers in each box. How many crackers are in the boxes?

_____ crackers

9. GO DEEPER Simon makes 8 towers of 10 blocks each. Ron makes 9 towers of 10 blocks each. How many blocks did they use?

_____ blocks

10. THINK SMARTER Ed has 150 marbles. How many bags of 10 marbles does he need to get so that he will have 200 marbles in all?

_____ bags of 10 marbles

TAKE HOME ACTIVITY • Have your child draw 110 Xs by drawing 11 groups of 10 Xs.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Model 3-Digit Numbers

Essential Question How do you show a 3-digit number using blocks?

Number and Operations in Base Ten—2.NBT.1

MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw

Use . Draw to show what you did.

FOR THE TEACHER • Read the following problem. Jack has 12 tens blocks. How many hundreds and tens does Jack have? Have children show Jack's blocks and then draw quick pictures. Then have children circle 10 tens and solve the problem.

Math Talk **Mathematical Practices**

If Jack had 14 tens, how many hundreds and tens would he have? **Explain**.

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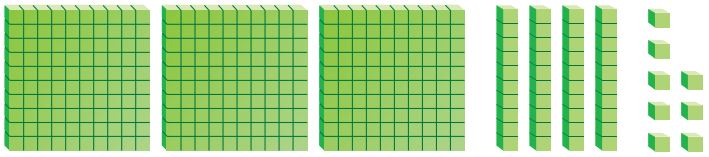
Model and Draw

In the number 348, the 3 is in the hundreds place, the 4 is in the tens place, and the 8 is in the ones place.

Write how many hundreds, tens, and ones.

3 hundreds + 4 tens + 8 ones

Show the number 348 using blocks.

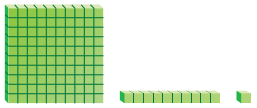


Draw a quick picture.

Share and Show

MATH BOARD

Write how many hundreds, tens, and ones.

Show with  . Then draw a quick picture.

1. 234

___ hundreds + ___ tens + ___ ones

2. 156

___ hundred + ___ tens + ___ ones

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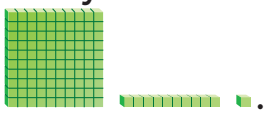
Name _____

On Your Own

Write how many hundreds, tens, and ones.

Show with  . Then draw a quick picture.

3. 125

___ hundred + ___ tens + ___ ones

4. 312

___ hundreds + ___ ten + ___ ones

5. 245

___ hundreds + ___ tens + ___ ones

6. 103

___ hundred + ___ tens + ___ ones

7. 419

___ hundreds + ___ ten + ___ ones

8. 328

___ hundreds + ___ tens + ___ ones

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Problem Solving • Applications

WRITE Math

9. THINK SMARTER How are the numbers 342 and 324 alike? How are they different?

_____

_____

_____

_____

MATHEMATICAL PRACTICE 4 **Model Mathematics**

Write the number for the clue.

10. A model for my number has 2 hundreds blocks, no tens blocks, and 3 ones blocks.

My number is _____.

11. A model for my number has 3 hundreds blocks, 5 tens blocks, and no ones blocks.

My number is _____.

12. THINK SMARTER There are 2 boxes of 100 pencils and some single pencils on the table. Choose all the numbers that show how many pencils could be on the table.

- ○ 200
- ○ 106
- ○ 203
- ○ 207

TAKE HOME ACTIVITY • Write the number 438. Have your child tell you the values of the digits in the number 438.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Hundreds, Tens, and Ones

Essential Question How do you write the 3-digit number that is shown by a set of blocks?

Number and Operations in Base Ten—2.NBT.1 *Also 2.NBT.3*

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw

Write the number of hundreds, tens, and ones. Then draw a quick picture.

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Math Talk **Mathematical Practices**

Describe how the two numbers are alike. **Describe** how they are different.

FOR THE TEACHER • Read the following to children. Sebastion has 243 yellow blocks. How many hundreds, tens, and ones are in this number? Repeat for 423 red blocks.

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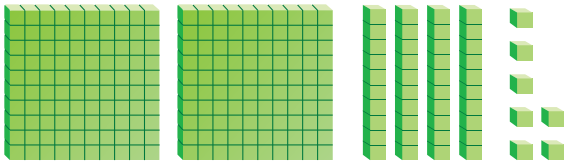
Model and Draw

Write how many hundreds, tens, and ones there are in the model. What are two ways to write this number?



Hundreds	Tens	Ones
2	4	7

247

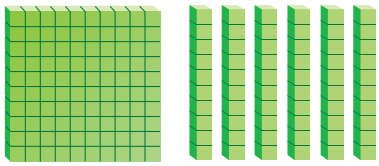
200 + 40 + 7

Share and Show

MATH BOARD

Write how many hundreds, tens, and ones are in the model. Write the number in two ways.

1.

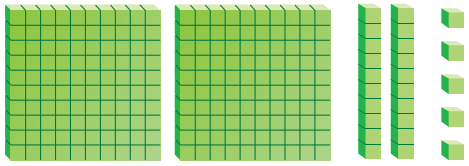


Hundreds	Tens	Ones

_____

_____ + _____ + _____

2.

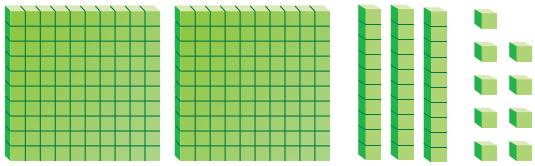


Hundreds	Tens	Ones

_____

_____ + _____ + _____

3.



Hundreds	Tens	Ones

_____

_____ + _____ + _____

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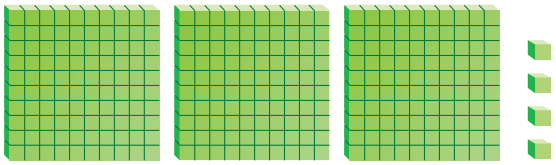
Name _____

On Your Own

Write how many hundreds, tens, and ones are in the model. Write the number in two ways.

4.

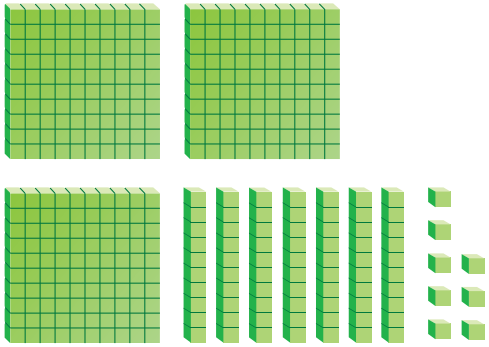


Hundreds	Tens	Ones

_____

_____ + _____ + _____

5.

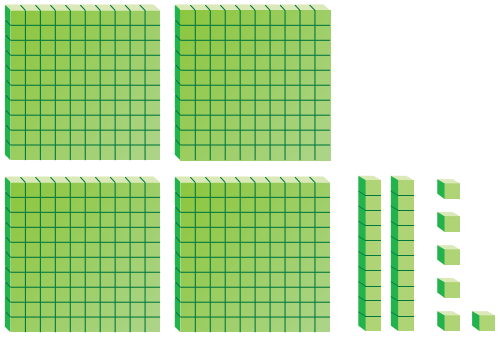


Hundreds	Tens	Ones

_____

_____ + _____ + _____

6.



Hundreds	Tens	Ones

_____

_____ + _____ + _____

Solve. Write or draw to explain.

7. THINK SMARTER A model for my number has 4 ones blocks, 5 tens blocks, and 7 hundreds blocks. What number am I?

_____

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Problem Solving • Applications

WRITE Math

8. GO DEEPER The hundreds digit of my number is greater than the tens digit. The ones digit is less than the tens digit. What could my number be? Write it in two ways.

_____ + _____ + _____

_____

9. THINK SMARTER Karen has these bags of marbles. How many marbles does Karen have?

_____ marbles

Explain how you used the picture to find the number of marbles Karen has.

_____

_____

_____

TAKE HOME ACTIVITY • Say a 3-digit number, such as 546. Have your child draw a quick picture for that number.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Place Value to 1,000

Essential Question How do you know the values of the digits in numbers?

Number and Operations in Base Ten—2.NBT.1

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Write the numbers. Then draw quick pictures.

_____ sheets of color paper

Hundreds	Tens	Ones

_____ sheets of plain paper

Hundreds	Tens	Ones

Math Talk **Mathematical Practices**

Describe how 5 tens is different from 5 hundreds.

FOR THE TEACHER • Read the following. There are 245 sheets of color paper in the closet. There are 458 sheets of plain paper by the table. Have children write each number and draw quick pictures to show the numbers.

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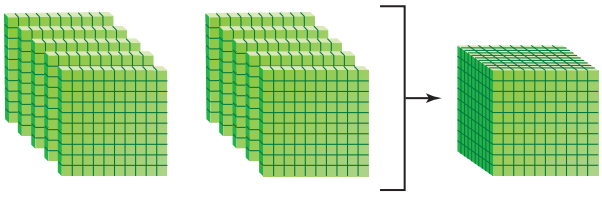
Model and Draw

The place of a digit in a number tells its value.

327

The 3 in 327 has a value of 3 hundreds, or 300.
The 2 in 327 has a value of 2 tens, or 20.
The 7 in 327 has a value of 7 ones, or 7.

There are 10 hundreds in 1 **thousand**.



1,000

The 1 is in the thousands place and has a value of 1 thousand.

Share and Show

MATH BOARD

Circle the value or the meaning of the red digit.

1. 702	2 ones	2 tens	2 hundreds
2. 459	500	50	5
3. 362	3 hundreds	3 tens	3 ones

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Name _____

On Your Own

Circle the value or the meaning of the red digit.

4. 549	400	40	4
5. 607	7 ones	7 tens	7 hundreds
6. 1,000	1 one	1 hundred	1 thousand
7. 914	90	900	9,000
8. 380	800	80	8
9. 692	6 ones	6 tens	6 hundreds

10. GO DEEPER Write the number that matches the clues.

- The value of my hundreds digit is 300.
- The value of my tens digit is 0.
- The value of my ones digit is an even number greater than 7.

The number is _____.

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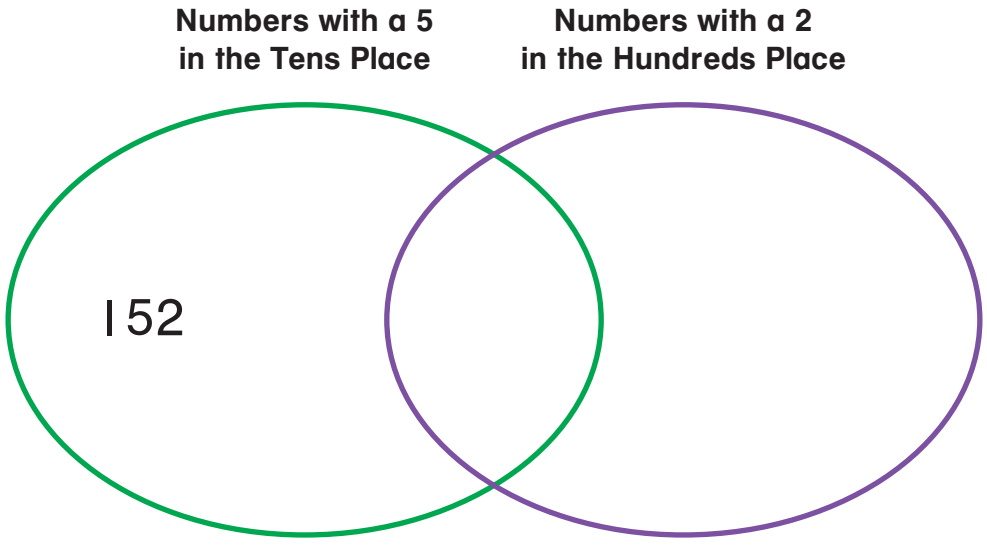
Problem Solving • Applications

Real World

WRITE Math

11. THINK SMARTER Ty is making a Venn diagram. Where in the diagram should he write the other numbers?



~~152~~
215
454
257
352
205
250

12. MATHEMATICAL PRACTICE 3 **Apply** Describe where 752 should be written in the diagram. Explain your answer.

_____

_____

_____

Personal Math Trainer

13. THINK SMARTER + Fill in the bubble next to all the numbers that have a digit 4 in the tens place.

- ○ 764
- ○ 149
- ○ 437
- ○ 342

TAKE HOME ACTIVITY • Ask your child to write 3-digit numbers, such as "a number with 2 hundreds" and "a number with a 9 in the ones place."

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Number Names

Essential Question How do you write 3-digit numbers using words?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.7

Listen and Draw

Write the missing numbers in the chart. Then find and circle the word form of these numbers below.

	12	13		15	16	17	18	19	20
21	22	23	24	25	26	27	28		30
31	32	33	34		36	37	38	39	40
41	42	43	44	45		47	48	49	50
51		53	54	55	56	57	58	59	60

forty-one	ninety-two	fourteen
eleven	thirty-five	forty-six
fifty-three	twenty-nine	fifty-two

Math Talk **Mathematical Practices**

Describe how to use words to write the number with a 5 in the tens place and a 7 in the ones place.

HOME CONNECTION • In this activity, your child reviewed the word form of numbers less than 100.

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Model and Draw

You can use words to write 3-digit numbers. First, look at the hundreds digit. Then, look at the tens digit and ones digit together.

245 → two hundred forty-five

713 → seven hundred thirteen

Share and Show

MATH BOARD

Write the number using words.

1. 506

five hundred six

2. 189

3. 328

Write the number.

4. four hundred fifteen

5. two hundred ninety-one

6. six hundred three

7. eight hundred forty-seven

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Name _____

On Your Own

Write the number.

8. seven hundred seventeen

_____

9. three hundred ninety

_____

10. six hundred forty-three

_____

11. nine hundred twelve

_____

12. four hundred twenty-six

_____

13. eight hundred seventy-one

_____

Write the number using words.

14. 632

_____

15. 568

_____

16. 321

_____

17. THINK SMARTER Alma counts two hundred sixty-eight leaves. Which is another way to write this number? Circle your answer.

$2 + 6 + 8$

$200 + 60 + 8$

$2 + 60 + 8$

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 2

Connect Symbols and Words

Circle the answer for each problem.

18. Derek counts one hundred ninety cars. Which is another way to write this number?

119

190

910

19. Beth counted three hundred fifty-six straws. Which is another way to write this number?

3 + 5 + 6

30 + 50 + 60

300 + 50 + 6

20. THINK SMARTER There are 537 chairs at the school. Write this number using words.

_____

Show the number in two other ways.

Hundreds	Tens	Ones

_____ + _____ + _____

TAKE HOME ACTIVITY • Ask your child to write the number 940 using words.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Different Forms of Numbers

Essential Question What are three ways to write a 3-digit number?

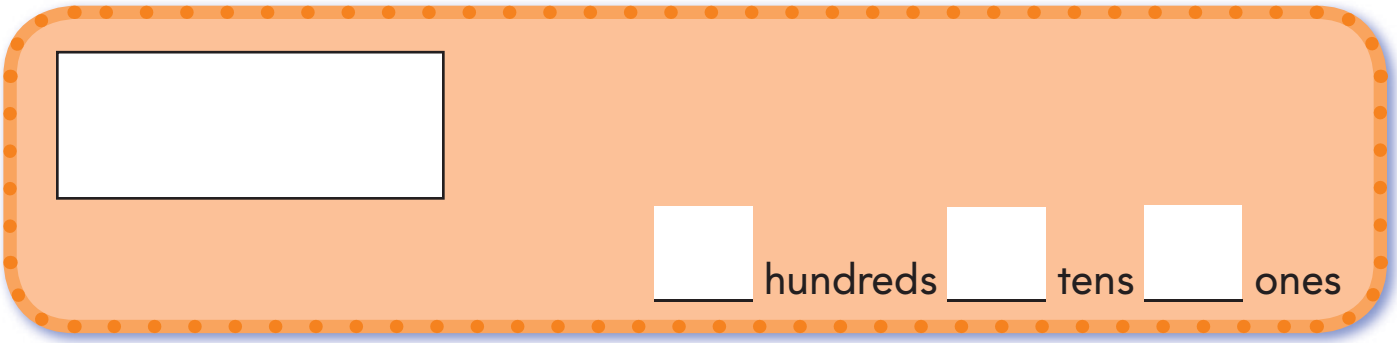
Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.7

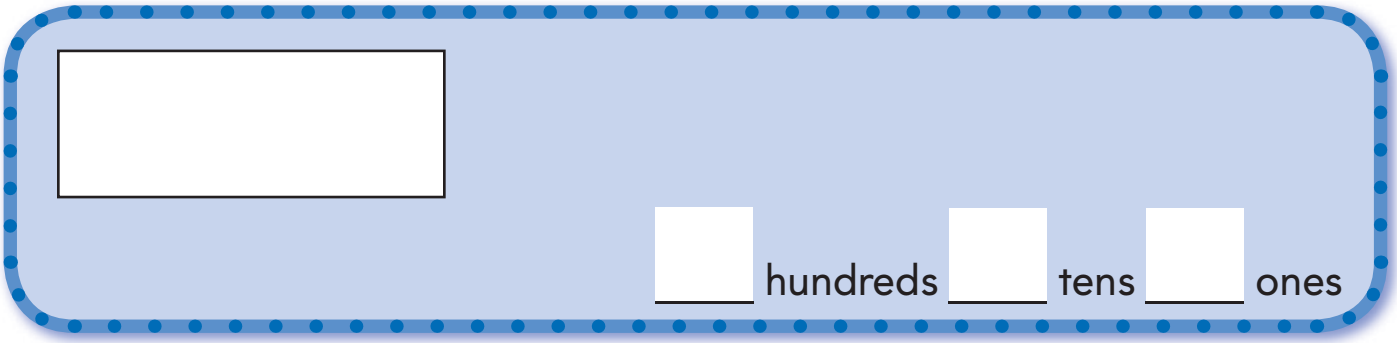
Listen and Draw

Real World

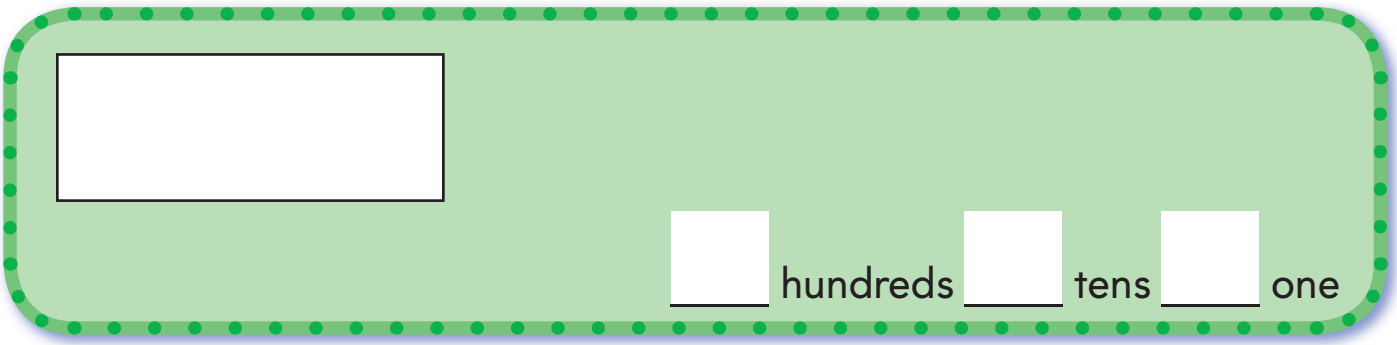
Write the number. Use the digits to write how many hundreds, tens, and ones.



____ hundreds ____ tens ____ ones



____ hundreds ____ tens ____ ones



____ hundreds ____ tens ____ one

FOR THE TEACHER • Read the following: Evan has 426 marbles. How many hundreds, tens, and ones are in 426? Continue the activity for 204 and 341.

Math Talk **Mathematical Practices**

How many hundreds are in 368? **Explain.**

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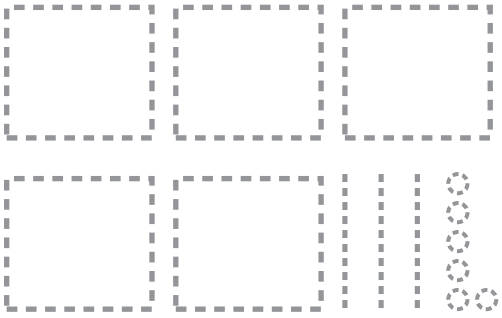
Model and Draw

You can use a quick picture to show a number.
You can write a number in different ways.

five hundred thirty-six



5 hundreds 3 tens 6 ones

500 + 30 + 6

536

Share and Show

MATH BOARD

Read the number and draw a quick picture.
Then write the number in different ways.

1. four hundred seven

____ hundreds ____ tens ____ ones

_____ + _____ + _____

_____

2. three hundred twenty-five

____ hundreds ____ tens ____ ones

_____ + _____ + _____

_____

3. two hundred fifty-three

____ hundreds ____ tens ____ ones

_____ + _____ + _____

_____

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Name _____

On Your Own

Read the number and draw a quick picture.
Then write the number in different ways.

4. one hundred seventy-two

_____ hundred _____ tens _____ ones

_____ + _____ + _____

_____

5. three hundred forty-six

_____ hundreds _____ tens _____ ones

_____ + _____ + _____

_____

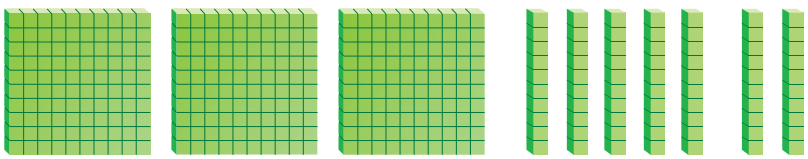
6. two hundred sixty-four

_____ hundreds _____ tens _____ ones

_____ + _____ + _____

_____

7. THINK SMARTER Ellen used these blocks to show 452. What is wrong? Cross out blocks and draw quick pictures for missing blocks.



TAKE HOME ACTIVITY • Ask your child to show the number 315 in three different ways.

FOR MORE PRACTICE: Standards Practice Book

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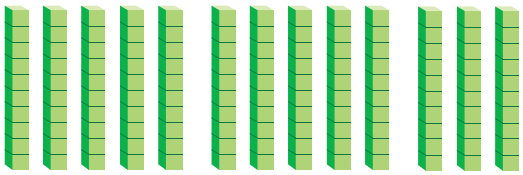
Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Circle tens to make 1 hundred. Write the number in different ways. (2.NBT.1)

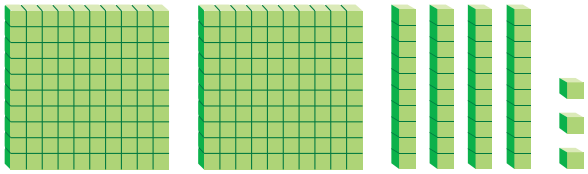
1. 

_____ tens

_____ hundred _____ tens

_____

Write how many hundreds, tens, and ones are in the model. Write the number in two ways. (2.NBT.1)

2. 

Hundreds	Tens	Ones

_____

_____ + _____ + _____

Circle the value or the meaning of the red digit. (2.NBT.1)

3. 528 | 5 | 50 | 500

4. 674 | 4 ones | 4 tens | 4 hundreds

5. THINK SMARTER Write the number six hundred forty-five in another way. (2.NBT.3)

_____

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Name _____

Algebra • Different Ways to Show Numbers

Essential Question How can you use blocks or quick pictures to show the value of a number in different ways?

Number and Operations in Base Ten—2.NBT.3

MATHEMATICAL PRACTICES
MP.3, MP.6, MP.7

Listen and Draw

Real World

Draw quick pictures to solve.
Write how many tens and ones.

_____ tens _____ ones

_____ tens _____ ones

FOR THE TEACHER • Read this problem to children. Mrs. Peabody has 35 books on a cart to take to classrooms. She can use boxes that each hold 10 books. She can also place single books on the cart. What are two different ways she can put the books on the cart?

Math Talk **Mathematical Practices**

Describe how you found different ways to show 35 books.

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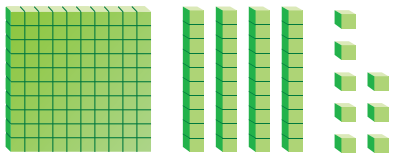
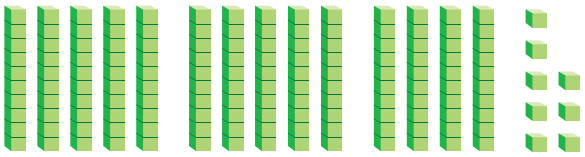
Model and Draw

Here are two ways to show 148.



Hundreds	Tens	Ones
1	4	8



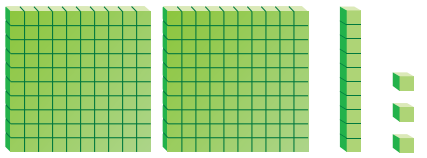
Hundreds	Tens	Ones
0	14	8

Share and Show

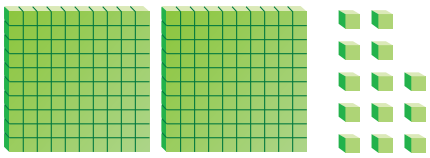
MATH BOARD

Write how many hundreds, tens, and ones are in the model.

1. 213

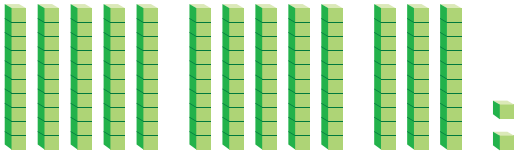


Hundreds	Tens	Ones

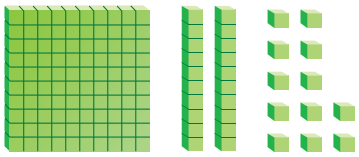


Hundreds	Tens	Ones

2. 132



Hundreds	Tens	Ones



Hundreds	Tens	Ones

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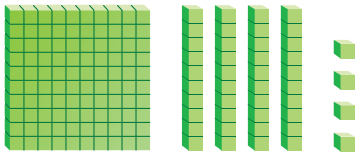
Name _____

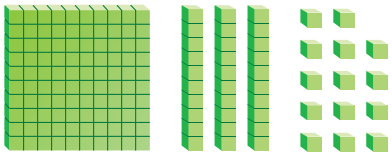
On Your Own

Write how many hundreds, tens, and ones are in the model.

3. 144

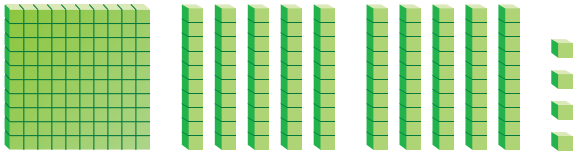


Hundreds	Tens	Ones

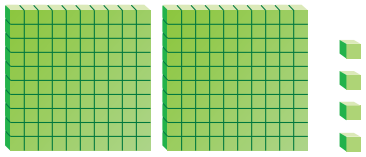


Hundreds	Tens	Ones

4. 204



Hundreds	Tens	Ones



Hundreds	Tens	Ones

5. MATHEMATICAL PRACTICE 3 **Make Arguments**

Sue said that 200 + 20 + 23 is the same as 200 + 30 + 3. Is she correct? Explain.

_____

_____

_____

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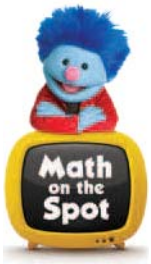
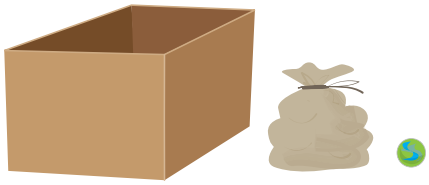
Problem Solving • Applications Real World

WRITE Math

Marbles are sold in boxes, in bags, or as single marbles. Each box has 10 bags of marbles in it. Each bag has 10 marbles in it.





6. THINK SMARTER Draw pictures to show two ways to buy 324 marbles.

Use the marble information above.

7. THINK SMARTER There is only one box of marbles in the store. There are many bags of marbles and single marbles. Draw a picture to show a way to buy 312 marbles.

How many boxes, bags, and single marbles did you show?

_____

_____

TAKE HOME ACTIVITY • Write the number 156. Have your child draw quick pictures of two ways to show this number.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Count On and Count Back by 10 and 100

Essential Question How do you use place value to find 10 more, 10 less, 100 more, or 100 less than a 3-digit number?

Number and Operations in Base Ten—2.NBT.8

MATHEMATICAL PRACTICES
MP.7

Listen and Draw Real World

Draw quick pictures for the numbers.

Girls

Hundreds	Tens	Ones

Boys

Hundreds	Tens	Ones

FOR THE TEACHER • Tell children that there are 342 girls at Center School. Have children draw quick pictures for 342. Then tell them that there are 352 boys at the school. Have them draw quick pictures for 352.

Math Talk — Mathematical Practices

Describe how the two numbers are different.

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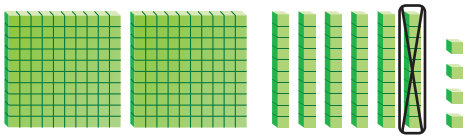
Model and Draw

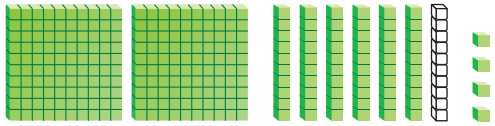
You can show 10 less or 10 more than a number by changing the digit in the tens place.

10 less than 264



Hundreds	Tens	Ones
2	5	4

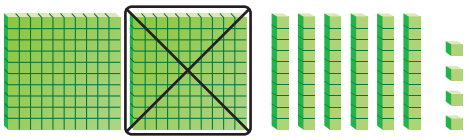
10 more than 264



Hundreds	Tens	Ones
2	7	4

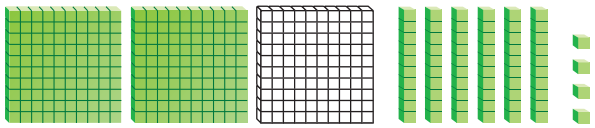
You can show 100 less or 100 more than a number by changing the digit in the hundreds place.

100 less than 264



Hundreds	Tens	Ones
1	6	4

100 more than 264



Hundreds	Tens	Ones
3	6	4

Share and Show

MATH BOARD

Write the number.

1. 10 more than 648

_____

2. 100 less than 513

_____

3. 100 more than 329

_____

4. 10 less than 827

_____

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Name _____

On Your Own

Write the number.

5. 10 more than 471

_____

6. 10 less than 143

_____

7. 100 more than 555

_____

8. 100 less than 757

_____

9. 100 more than 900

_____

10. 10 less than 689

_____

11. 100 less than 712

_____

12. 10 less than 254

_____

13. 10 more than 986

_____

14. 100 less than 392

_____

15. THINK SMARTER Rick has 10 more crayons than Lori. Lori has 136 crayons. Tom has 10 fewer crayons than Rick. How many crayons does each child have?

Rick: _____ crayons

Tom: _____ crayons

Lori: _____ crayons

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 1 **Analyze Relationships**

16. Juan's book has 248 pages. This is 10 more pages than there are in Kevin's book. How many pages are in Kevin's book?

_____ pages

17. There are 217 pictures in Tina's book. There are 100 fewer pictures in Mark's book. How many pictures are in Mark's book?

_____ pictures

18. GO DEEPER Use the clues to answer the question.

- Shawn counts 213 cars.
- Maria counts 100 fewer cars than Shawn.
- Jayden counts 10 more cars than Maria.

How many cars does Jayden count? _____ cars

19. THINK SMARTER Rico has 235 stickers. Gabby has 100 more stickers than Rico. Thomas has 10 fewer stickers than Gabby. Write the number of stickers each child has.

_____ Rico

_____ Gabby

_____ Thomas

TAKE HOME ACTIVITY • Write the number 596. Have your child name the number that is 100 more than 596.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Number Patterns

Essential Question How does place value help you identify and extend counting patterns?

Number and Operations in Base Ten—2.NBT.8

MATHEMATICAL PRACTICES
MP.7

Listen and Draw

Shade the numbers in the counting pattern.

801	802	803	804	805	806	807	808	809	810
811	812	813	814	815	816	817	818	819	820
821	822	823	824	825	826	827	828	829	830
831	832	833	834	835	836	837	838	839	840
841	842	843	844	845	846	847	848	849	850
851	852	853	854	855	856	857	858	859	860
861	862	863	864	865	866	867	868	869	870
871	872	873	874	875	876	877	878	879	880
881	882	883	884	885	886	887	888	889	890
891	892	893	894	895	896	897	898	899	900

FOR THE TEACHER • Read the following problem and discuss how children can use a counting pattern to solve. At Blossom Bakery, 823 muffins were sold in the morning. In the afternoon, four packages of 10 muffins were sold. How many muffins were sold that day?

Math Talk Mathematical Practices

What number is next in the counting pattern you see? **Explain.**

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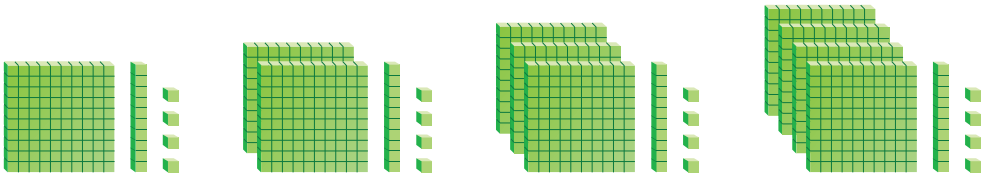
Model and Draw

Look at the digits in the numbers. What two numbers are next in the counting pattern?



114, 214, 314, 414, ____, ____

The _____ digit changes by one each time.

The next two numbers are _____ and _____.

Share and Show

MATH BOARD

Look at the digits to find the next two numbers.

1. 137, 147, 157, 167, ____, ____

   The next two numbers are _____ and _____.

2. 245, 345, 445, 545, ____, ____

   The next two numbers are _____ and _____.

3. 421, 431, 441, 451, ____, ____

   The next two numbers are _____ and _____.

4. 389, 489, 589, 689, ____, ____

   The next two numbers are _____ and _____.

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Name _____

On Your Own

Look at the digits to find the next two numbers.

5. 193, 293, 393, 493, ■, ■

The next two numbers are _____ and _____.

6. 484, 494, 504, 514, ■, ■

The next two numbers are _____ and _____.

7. 500, 600, 700, 800, ■, ■

The next two numbers are _____ and _____.

8. 655, 665, 675, 685, ■, ■

The next two numbers are _____ and _____.

9. THINK SMARTER Mark read 203 pages. Laney read 100 more pages than Mark. Gavin read 10 fewer pages than Laney. How many pages did Gavin read?

_____ pages

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Problem Solving • Applications (Real World) WRITE Math

Solve.

10. GO DEEPER There were 135 buttons in a jar. After Robin put more buttons into the jar, there were 175 buttons in the jar. How many groups of 10 buttons did she put into the jar?

_____ groups of 10 buttons

Explain how you solved the problem.

_____

_____

_____

_____

11. THINK SMARTER Write the next number in each counting pattern.

162, 262, 362, 462, _____

347, 357, 367, 377, _____

609, 619, 629, 639, _____

TAKE HOME ACTIVITY • With your child, take turns writing number patterns in which you count on by tens or by hundreds.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Compare Numbers

Essential Question How can you make a model to solve a problem about comparing numbers?

Number and Operations in Base Ten—2.NBT.4

MATHEMATICAL PRACTICES
MP.2, MP.4

Children bought 217 boxes of chocolate milk and 188 boxes of plain milk. Did they buy more boxes of chocolate milk or plain milk?

Unlock the Problem

Real World

Hands On

What do I need to find?

if the children bought more boxes of chocolate milk or plain milk

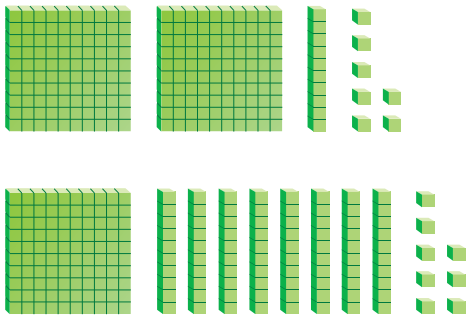
What information do I need to use?

_____ boxes of chocolate milk

_____ boxes of plain milk

Show how to solve the problem.

Model the numbers. Draw quick pictures of your models.



The children bought more boxes of _____ milk.

HOME CONNECTION • Your child used base-ten blocks to represent the numbers in the problem. These models were used as a tool for comparing numbers to solve the problem.

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Try Another Problem

- What do I need to find?
- What information do I need to use?

Model the numbers. Draw quick pictures to show how you solved the problem.

1. At the zoo, there are 137 birds and 142 reptiles. Are there more birds or more reptiles at the zoo?

more _____

2. Tom's book has 105 pages.
Delia's book has 109 pages.
Whose book has fewer pages? _____ book

Math Talk **Mathematical Practices**

Explain what you did to solve the second problem.

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Name _____

Share and Show

MATH BOARD

Model the numbers. Draw quick pictures to show how you solved the problem.

3. Mary's puzzle has 164 pieces. Jake's puzzle has 180 pieces. Whose puzzle has more pieces?

_____ puzzle

4. There are 246 people at the game. There are 251 people at the museum. At which place are there fewer people?

at the _____

5. There are 131 crayons in a box. There are 128 crayons in a bag. Are there more crayons in the box or in the bag?

in the _____

6. There are 308 books in the first room. There are 273 books in the second room. In which room are there fewer books?

in the _____ room

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Problem Solving • Applications (Real World) WRITE Math

7. THINK SMARTER There are 748 children at Dan's school. There are 651 children at Karen's school. There are 763 children at Jason's school. Which school has more than 759 children?

_____ school

8. MATHEMATICAL PRACTICE 1 **Analyze** There are 136 crayons in a box. Use the digits 4, 1, and 2 to write a number that is greater than 136.

_____

9. THINK SMARTER Becky has 134 stamps. Sara has 129 stamps. Who has more stamps?

_____

Sara buys 10 more stamps. Who has more stamps now?

_____

Draw quick pictures to show the stamps Becky and Sara have now.

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one of the problems on this page.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Compare Numbers

Essential Question How do you compare 3-digit numbers?

Number and Operations in Base Ten—2.NBT.4

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw Real World

Draw quick pictures to solve the problem.

More _____ were at the park.

FOR THE TEACHER • Read the following problem and have children draw quick pictures to compare the numbers. There were 125 butterflies and 132 birds at the park. Were there more butterflies or more birds at the park?

Math Talk **Mathematical Practices**

Explain how you compared the numbers.

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Model and Draw

Use place value to **compare** numbers. Start by looking at the digits in the greatest place value position first.

> is greater than
< is less than
= is equal to

Hundreds	Tens	Ones
4	8	3
5	7	0

4 hundreds < 5 hundreds

483 < 570

Hundreds	Tens	Ones
3	5	2
3	4	6

The hundreds are equal.

5 tens > 4 tens

352 > 346

Share and Show

MATH BOARD

Compare the numbers. Write >, <, or =.

1.

Hundreds	Tens	Ones
2	3	9
1	7	9

239 ◯ 179

2.

Hundreds	Tens	Ones
4	3	5
4	3	7

435 ◯ 437

3. 764
674

764 ◯ 674

4. 519
572

519 ◯ 572

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Name _____

On Your Own

Compare the numbers. Write >, <, or =.

5. 378
504

378 ◯ 504

6. 821
821

821 ◯ 821

7. 560
439

560 ◯ 439

8. 934
943

934 ◯ 943

9. 475
475

475 ◯ 475

10. 736
687

736 ◯ 687

MATHEMATICAL PRACTICE 2 **Use Reasoning** Write a 3-digit number in the box that makes the comparison true.

11. 526 < ☐

12. 319 > ☐

13. ☐ > 782

14. ☐ < 131

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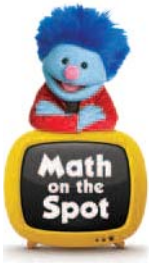
Problem Solving • Applications (Real World) WRITE Math

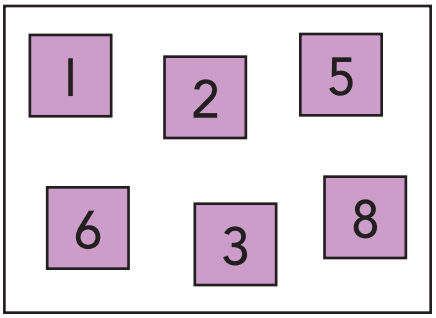
Solve. Write or draw to explain.

15. THINK SMARTER Mrs. York has 300 red stickers, 50 blue stickers, and 8 green stickers. Mr. Reed has 372 stickers. Who has more stickers?



_____

16. MATHEMATICAL PRACTICE 1 **Analyze** Jasmine has some number cards. Use the digits on these cards to make two 3-digit numbers. Use each digit only once. Compare the numbers.



_____ ◯ _____

Personal Math Trainer

17. THINK SMARTER + Is the comparison true? Choose Yes or No.

$453 > 354$	○ Yes	○ No
$253 < 164$	○ Yes	○ No
$391 > 417$	○ Yes	○ No
$490 < 528$	○ Yes	○ No

TAKE HOME ACTIVITY • Have your child explain how to compare the numbers 281 and 157.

FOR MORE PRACTICE: Standards Practice Book

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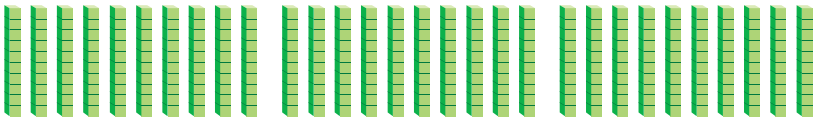
Name _____

Chapter 2 Review/Test

1. 

Do the choices show a way to represent the blocks? Choose Yes or No.

3 hundreds	○ Yes	○ No
30 ones	○ Yes	○ No
30 hundreds	○ Yes	○ No
30 tens	○ Yes	○ No

2. Robin has 180 stickers. How many pages of 10 stickers does she need so that she will have 200 stickers in all?

_____ pages of stickers

3. Sanjo has 348 marbles. Harry has 100 fewer marbles than Sanjo. Ari has 10 more marbles than Harry. Write the number of marbles each child has.

_____	_____	_____
Sanjo	Ari	Harry

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4. Write the next number in each counting pattern.

214, 314, 414, 514, _____

123, 133, 143, 153, _____

5. Is the comparison true? Choose Yes or No.

$787 < 769$	○ Yes	○ No
$405 > 399$	○ Yes	○ No
$396 > 402$	○ Yes	○ No
$128 < 131$	○ Yes	○ No

6. Cody is thinking of the number 627. Write Cody's number in words.

_____

Show Cody's number in two other ways.

Hundreds	Tens	Ones

_____ + _____ + _____

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Name _____

7. Matty needs 200 buttons. Amy gives her 13 bags with 10 buttons in each bag. How many buttons does she need now?

_____ buttons

8. There are 4 boxes of 100 sheets of paper and some single sheets of paper in the closet. Choose all the numbers that show how many sheets of paper could be in the closet.

- ○ 348
- ○ 324
- ○ 406
- ○ 411

9. Blocks are sold in boxes, in bags, or as single blocks. Each box has 10 bags in it. Each bag has 10 blocks in it. Tara needs 216 blocks. Draw a picture to show a way to buy 216 blocks.

How many boxes, bags, and single blocks did you show?

_____

_____

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10. Dan and Hannah collect toy cars. Dan has 132 cars. Hannah has 138 cars. Who has more cars? _____

Dan gets 10 more cars. Hannah gets 3 more cars. Who has more cars now? _____

Draw quick pictures to show how many cars Dan and Hannah have now.

Dan's Cars	Hannah's Cars

11. Choose all the numbers that have the digit 2 in the tens place.

- ○ 721
- ○ 142
- ○ 425
- ○ 239

12. Ann has 239 shells. Write the number in words.

_____

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All About Animals

by John Hudson

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CRITICAL AREA Building fluency with addition and subtraction

The giraffe is the tallest land animal in the world. Adult giraffes are 13 to 17 feet tall. Newborn giraffes are about 6 feet tall.

A group of 5 giraffes drinks water at a watering hole. A group of 5 giraffes eats leaves from trees. How many giraffes are there in all?

_____ giraffes

How do giraffes care for their young?

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The ostrich is the largest bird in the world. Ostriches cannot fly, but they can run fast. Ostrich eggs weigh about 3 pounds each! Several ostriches will lay eggs in a shared nest.

There are 6 eggs in a nest. Then 5 more eggs are put in that nest. How many eggs are in the nest now?

_____ eggs

How do ostriches care for their young?

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Kangaroos can move quickly by jumping with their two back legs. When they are moving slowly, they use all four legs.

Western gray kangaroos live in groups called mobs. There are 8 kangaroos in a mob. 4 more kangaroos join the mob. How many kangaroos are in the mob in all?

_____ kangaroos

How do kangaroos care for their young?

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Wild boars like to eat roots. They use their tough snouts to dig. Wild boars can be up to 6 feet long.

Wild boars live in groups called sounders. There is one sounder of 14 boars.
If 7 of the boars are eating, how many boars are not eating?

_____ boars

How do wild boars care for their young?

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Moose are the largest kind of deer. Male moose have antlers that may be 5 to 6 feet wide. Moose can trot and gallop. They are also good swimmers!

A ranger saw 7 moose in the morning and 6 moose in the afternoon. How many moose did the ranger see that day?

_____ moose

How do moose care for their young?

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Name _____

Write About the Story

Choose one kind of animal.
Draw a picture and write your own story about that kind of animal.
Use addition in your story.

Vocabulary Review

add in all

giraffe

ostrich

kangaroo

WRITE Math

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How many eggs are there?

Draw more ostrich eggs in each nest. Write an addition sentence below each nest to show how many eggs are in each nest now.

_____

_____

MATH BOARD

Choose a different animal from the story. Write another story that uses addition.

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Chapter 3

Basic Facts and Relationships

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Curious about Math

Parrot fish live near coral reefs in tropical ocean waters. They use their sharp teeth to scrape food off of the coral.

Suppose 10 parrot fish are eating at a coral reef. 3 of the fish swim away. How many fish are still eating?

Name _____

Show What You Know

Use Symbols to Add

Use the picture. Use + and = to complete the addition sentence.

1.

3 ◯ 1 ◯ 4

2.

2 ◯ 3 ◯ 5

Sums to 10

Write the sum.

3. $\begin{array}{r} 4 \\ +\ 3 \\ \hline \end{array}$

4. $\begin{array}{r} 5 \\ +\ 0 \\ \hline \end{array}$

5. $\begin{array}{r} 2 \\ +\ 7 \\ \hline \end{array}$

6. $\begin{array}{r} 6 \\ +\ 2 \\ \hline \end{array}$

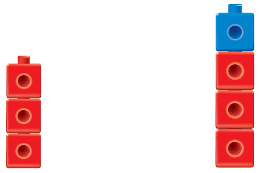
7. $\begin{array}{r} 9 \\ +\ 1 \\ \hline \end{array}$

Doubles and Doubles Plus One

Write the addition sentence.

8.

___ ◯ ___ ◯ ___

9. 

___ ◯ ___ ◯ ___

This page checks understanding of important skills needed for success in Chapter 3.

Personal Math Trainer
Online Assessment and Intervention

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Name _____

Vocabulary Builder

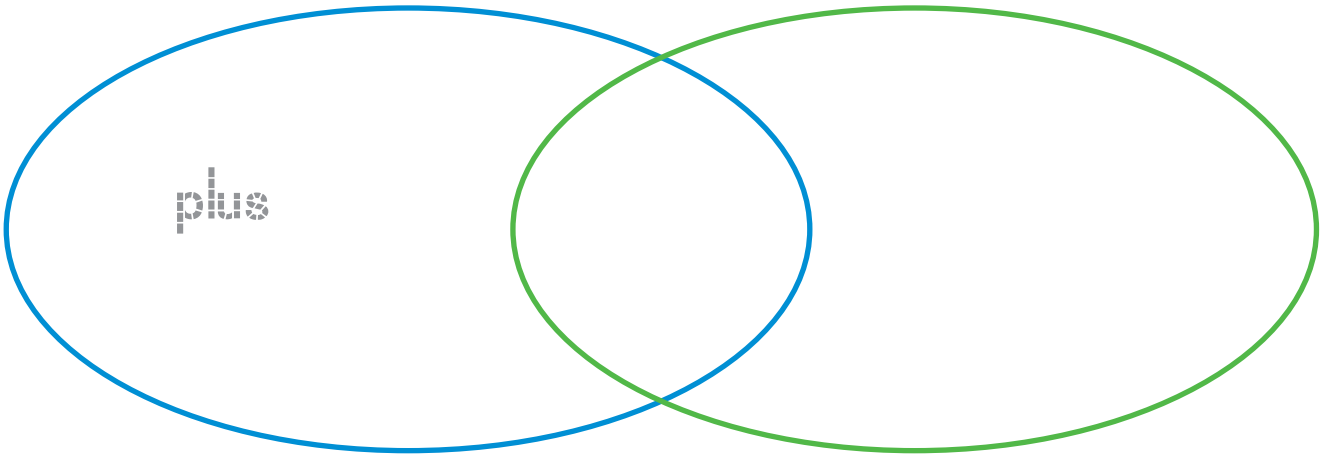
Review Words
addition
subtraction
plus
minus
equals
count on
count back

Visualize It

Sort the review words in the graphic organizer.

Addition Words

Subtraction Words



Understand Vocabulary

1. Circle the **addition** sentence. $3 + 6 = 9$ $9 - 6 = 3$

2. Circle the **subtraction** sentence. $8 + 2 = 10$ $10 - 2 = 8$

3. Circle the **count on** fact. $5 - 1 = 4$ $4 + 1 = 5$

4. Circle the **count back** fact. $8 - 2 = 6$ $6 + 2 = 8$

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GO DIGITAL • Interactive Student Edition • Multimedia eGlossary

Game Caterpillar Chase

Materials

- 1
- 1
- 1

Play with a partner.

1. Put your cube on START.
2. Toss the , and move that many spaces.
3. Say the sum or difference. Your partner checks your answer.
4. Take turns. The first person to get to FINISH wins.

FINISH

$7 + 3$	$3 - 1$	$3 + 4$	$6 - 0$	$5 + 2$
$2 + 4$	$6 - 3$	$3 + 0$	$4 - 1$	$1 + 6$
$5 - 5$	$5 - 2$			
$7 - 4$	$3 + 5$	$0 + 4$	$7 - 5$	$2 + 3$
$5 - 3$				
$8 - 2$	$5 + 3$	$2 + 2$	$6 - 1$	$4 + 4$

START

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Name _____

Use Doubles Facts

Essential Question How can you use doubles facts to find sums for near doubles facts?

Operations and Algebraic Thinking—2.OA.2

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw

Real World

Draw a picture to show the problem. Then write an addition sentence for the problem.

_____ ◯ _____ ◯ _____

_____ toy cars

Math Talk **Mathematical Practices**

Explain why 4 + 4 = 8 is called a doubles fact.

FOR THE TEACHER • Read this problem and have children draw a picture for the problem. Nathan has 6 toy cars. Alisha gives him 6 more toy cars. How many toy cars does Nathan have now? After children write an addition sentence, have them name other doubles facts that they know.

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Model and Draw

You can use doubles facts to find sums for other facts.

$3 + 4 = ?$

$3 + 3 + 1 = ?$

$3 + 3 = 6$

$6 + 1 = 7$

So, $3 + 4 =$ _____.

$7 + 6 = ?$

$7 + 7 - 1 = ?$

$7 + 7 = 14$

$14 - 1 = 13$

So, $7 + 6 =$ _____.

Share and Show

MATH BOARD

Write a doubles fact you can use to find the sum. Write the sum.

1. $2 + 3 =$ _____

_____ + _____ = _____

2. $4 + 5 =$ _____

_____ + _____ = _____

3. $4 + 3 =$ _____

_____ + _____ = _____

4. $6 + 7 =$ _____

_____ + _____ = _____

5. $5 + 6 =$ _____

_____ + _____ = _____

6. $8 + 7 =$ _____

_____ + _____ = _____

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Name _____

On Your Own

Write a doubles fact you can use to find the sum. Write the sum.

7. 5 + 4 = _____

_____ + _____ = _____

8. 6 + 5 = _____

_____ + _____ = _____

9. 6 + 7 = _____

_____ + _____ = _____

10. 7 + 8 = _____

_____ + _____ = _____

11. 8 + 9 = _____

_____ + _____ = _____

12. 5 + 6 = _____

_____ + _____ = _____

13. 7 + 6 = _____

_____ + _____ = _____

14. 9 + 8 = _____

_____ + _____ = _____

15. THINK SMARTER Mr. Norris wrote a doubles fact. It has a sum greater than 6. The numbers that he added are each less than 6. What fact might he have written?

_____

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Problem Solving • Applications (Real World) WRITE Math

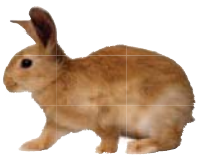
Solve. Write or draw to explain.

16. MATHEMATICAL PRACTICE 1 **Analyze**

Andrea has 8 red buttons and 9 blue buttons. How many buttons does Andrea have?

_____ buttons

17. GO DEEPER Henry sees 3 rabbits. Callie sees double that number of rabbits. How many more rabbits does Callie see than Henry?



_____ more rabbits

18. THINK SMARTER Could you use the doubles fact to find the sum for 4 + 5? Choose Yes or No.

4 + 4 = 8	○ Yes	○ No
5 + 5 = 10	○ Yes	○ No
9 + 9 = 18	○ Yes	○ No

TAKE HOME ACTIVITY • Ask your child to write three different doubles facts with sums less than 17.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Practice Addition Facts

Essential Question What are some ways to remember sums?

Operations and Algebraic Thinking—2.OA.2

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw Real World

Draw pictures to show the problems.

_____

_____

FOR THE TEACHER • Read the following two problems. Have children draw a picture and write a number sentence for each. On Monday, Tony saw 3 dogs and 6 cats. How many animals did he see? On Tuesday, Tony saw 6 dogs and 3 cats. How many animals did he see?

Math Talk **Mathematical Practices**

Explain how the two problems are alike.
Explain how they are different.

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Model and Draw

These are some ways to remember facts.

You can count on 1, 2, or 3.

$6 + 1 = \underline{7}$

$6 + 2 = \underline{8}$

$6 + 3 = \underline{9}$

Changing the order of the **addends** does not change the sum.

$\underline{8} = 2 + 6$

$\underline{8} = 6 + 2$

Share and Show

MATH BOARD

Write the sums.

1. $4 + 4 = \_\_\_\_$

$4 + 5 = \_\_\_\_$

2. $5 + 0 = \_\_\_\_$

$2 + 0 = \_\_\_\_$

3. $3 + 8 = \_\_\_\_$

$8 + 3 = \_\_\_\_$

4. $\_\_\_\_ = 5 + 5$

$\_\_\_\_ = 5 + 4$

5. $5 + 7 = \_\_\_\_$

$7 + 5 = \_\_\_\_$

6. $\_\_\_\_ = 7 + 7$

$\_\_\_\_ = 7 + 8$

7. $\_\_\_\_ = 3 + 7$

$\_\_\_\_ = 7 + 3$

8. $9 + 3 = \_\_\_\_$

$3 + 9 = \_\_\_\_$

9. $\_\_\_\_ = 6 + 6$

$\_\_\_\_ = 6 + 5$

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Name _____

On Your Own

Write the sums.

10. $7 + 1 + \_\_\_\_$

$1 + 7 = \_\_\_\_$

11. $\_\_\_\_ = 4 + 0$

$\_\_\_\_ = 9 + 0$

12. $5 + 5 = \_\_\_\_$

$5 + 4 = \_\_\_\_$

13. $8 + 2 = \_\_\_\_$

$2 + 8 = \_\_\_\_$

14. $3 + 3 = \_\_\_\_$

$3 + 4 = \_\_\_\_$

15. $7 + 8 = \_\_\_\_$

$8 + 7 = \_\_\_\_$

16. $\_\_\_\_ = 4 + 1$

$\_\_\_\_ = 1 + 4$

17. $0 + 7 = \_\_\_\_$

$0 + 6 = \_\_\_\_$

18. $8 + 8 = \_\_\_\_$

$8 + 9 = \_\_\_\_$

19. $5 + 3 = \_\_\_\_$

$3 + 5 = \_\_\_\_$

20. $\_\_\_\_ = 9 + 9$

$\_\_\_\_ = 9 + 8$

21. $6 + 7 = \_\_\_\_$

$7 + 6 = \_\_\_\_$

22. THINK SMARTER Sam painted 3 pictures. Ellie painted twice as many pictures as Sam. How many pictures did they paint?

_____ pictures

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

23. GO DEEPER Chloe draws 8 pictures. Reggie draws 1 more picture than Chloe. How many pictures do they draw?

_____ pictures

24. MATHEMATICAL PRACTICE 1 **Analyze** Joanne made 9 clay bowls last week. She made the same number of clay bowls this week. How many clay bowls did she make in the two weeks?

_____ clay bowls

Personal Math Trainer

25. THINK SMARTER + There are 9 raisins in the bowl. Devon puts 8 more raisins in the bowl. Complete the addition sentence to find how many raisins are in the bowl now.

_____ + _____ = _____

_____ raisins

TAKE HOME ACTIVITY • Ask your child to write several addition facts that he or she knows.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Make a Ten to Add

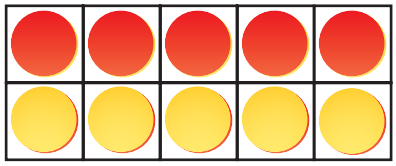
Essential Question How is the make a ten strategy used to find sums?

Operations and Algebraic Thinking—2.OA.2

MATHEMATICAL PRACTICES
MP.7, MP.8

Listen and Draw

Write the fact below the ten frame when you hear the problem that matches the model.



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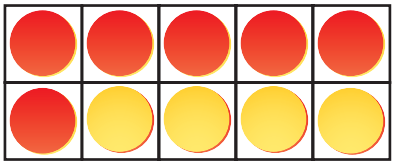
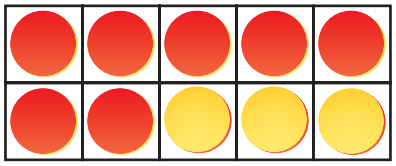
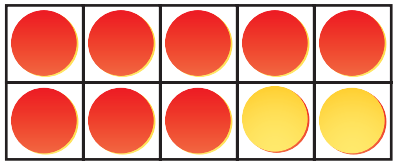


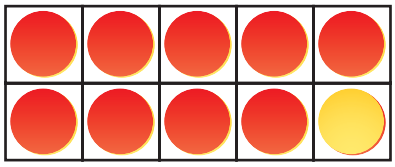
_____



_____



_____



_____

FOR THE TEACHER • Read the following problem. There are 6 large dogs and 4 small dogs. How many dogs are there? Have children find the ten frame that models the problem and write the addition sentence. Repeat by revising the story for each addition fact represented by the other ten frames.

Math Talk **Mathematical Practices**

Describe a pattern you see in these make a ten facts.

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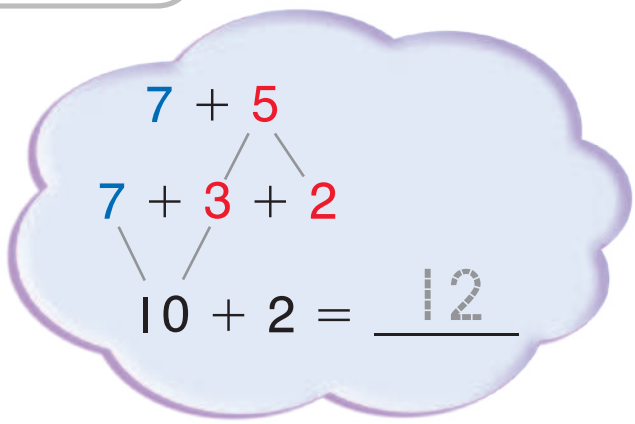
Model and Draw

$7 + 5 = ?$

You need to add 3 to 7 to make a ten. Break apart 5 as 3 and 2.



So, $7 + 5 =$ _____.

Share and Show

MATH BOARD

Show how you can make a ten to find the sum.
Write the sum.

1. $8 + 3 =$ _____

2 1

$10 +$ _____ $=$ _____

2. $2 + 9 =$ _____

1 1

$10 +$ _____ $=$ _____

3. $8 + 5 =$ _____

$10 +$ _____ $=$ _____

4. $4 + 7 =$ _____

$10 +$ _____ $=$ _____

5. $3 + 9 =$ _____

$10 +$ _____ $=$ _____

6. $7 + 6 =$ _____

$10 +$ _____ $=$ _____

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Name _____

On Your Own

Show how you can make a ten to find the sum.
Write the sum.

7. 4 + 9 = _____

3 1

10 + _____ = _____

8. 9 + 8 = _____

1 7

10 + _____ = _____

9. 8 + 6 = _____

10 + _____ = _____

10. 5 + 9 = _____

10 + _____ = _____

11. 7 + 9 = _____

10 + _____ = _____

12. 8 + 4 = _____

10 + _____ = _____

13. 9 + 9 = _____

10 + _____ = _____

14. 8 + 7 = _____

10 + _____ = _____

15. THINK SMARTER There were 5 bees in a hive. How many more bees need to go in the hive for there to be 14 bees?

_____ more bees

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

16. MATHEMATICAL PRACTICE 1 **Analyze** There are 9 large bicycles at the store. There are 6 small bicycles at the store. How many bicycles are at the store?

_____ bicycles

17. GO DEEPER Max is thinking of a doubles fact. It has a sum that is greater than the sum of 6 + 4 but less than the sum of 8 + 5. What fact is Max thinking of?

_____ + _____ = _____

18. THINK SMARTER Natasha had 8 shells. Then she found 5 more shells. Draw to show how to find the number of shells Natasha has now.

How many shells does she have now? _____ shells

TAKE HOME ACTIVITY • Ask your child to name pairs of numbers that have a sum of 10. Then have him or her write the addition sentences.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Add 3 Addends

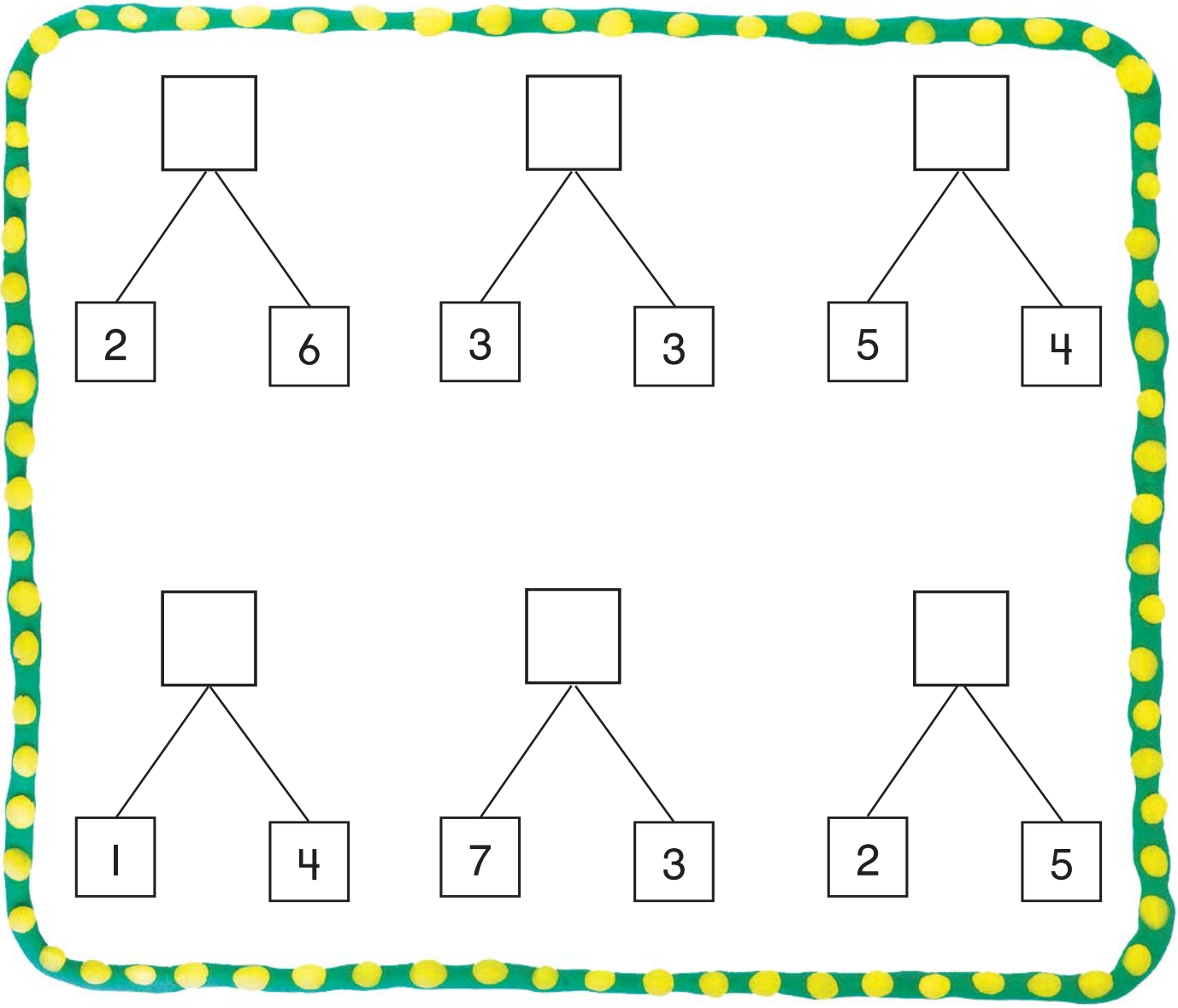
Essential Question How do you add three numbers?

Operations and Algebraic Thinking—2.OA.2 *Also 2.NBT.5*

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Write the sum of each pair of addends.



Math Talk **Mathematical Practices**

Describe how you found the sum of 5 and 4.

FOR THE TEACHER • After children have recorded the sum of each pair of addends, have them share their answers and discuss the strategies used.

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Model and Draw

You can group numbers in different ways to add.

Choose two addends.
Look for facts you know.

Changing the way the numbers are grouped does not change the sum.

$3 + 2 + 7 = ?$

$5 + 7 = 12$

$3 + 2 + 7 = ?$

$3 + 9 = \_\_\_\_$

$3 + 2 + 7 = ?$

$10 + 2 = \_\_\_\_$

Share and Show

MATH BOARD

Solve two ways. Circle the two addends you add first.

1. $1 + 8 + 2 = \_\_\_\_$ $1 + 8 + 2 = \_\_\_\_$

2. $7 + 3 + 3 = \_\_\_\_$ $7 + 3 + 3 = \_\_\_\_$

3. $4 + 2 + 4 = \_\_\_\_$ $4 + 2 + 4 = \_\_\_\_$

4. $2 + 8 + 2 = \_\_\_\_$ $2 + 8 + 2 = \_\_\_\_$

5.
$$\begin{array}{r} 3 \\ 2 \\ +\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ 2 \\ +\ 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7 \\ 0 \\ +\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ 0 \\ +\ 2 \\ \hline \end{array}$$

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Name _____

On Your Own

Solve two ways. Circle the two addends you add first.

7. 4 + 1 + 6 = _____ 4 + 1 + 6 = _____

8. 4 + 3 + 3 = _____ 4 + 3 + 3 = _____

9. 1 + 5 + 3 = _____ 1 + 5 + 3 = _____

10. 6 + 4 + 4 = _____ 6 + 4 + 4 = _____

11. 5 + 5 + 5 = _____ 5 + 5 + 5 = _____

12. 7 + 0 + 6 = _____ 7 + 0 + 6 = _____

13.
$$\begin{array}{r} 5 \\ 3 \\ +\ 4 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ 3 \\ +\ 4 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 4 \\ 2 \\ +\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ 2 \\ +\ 5 \\ \hline \end{array}$$

MATHEMATICAL PRACTICE 7 **Look for Structure**

Write the missing addend.

15.
$$\begin{array}{r} 5 \\ 5 \\ +\ \square \\ \hline 14 \end{array}$$

16.
$$\begin{array}{r} 4 \\ \square \\ +\ 4 \\ \hline 12 \end{array}$$

17.
$$\begin{array}{r} 3 \\ \square \\ +\ 7 \\ \hline 11 \end{array}$$

18.
$$\begin{array}{r} 5 \\ 3 \\ +\ \square \\ \hline 13 \end{array}$$

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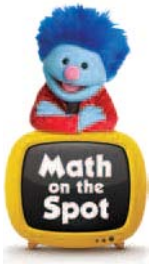
Problem Solving • Applications (Real World) WRITE Math

Choose a way to solve.
Write or draw to explain.

19. THINK SMARTER Nick, Alex, and Sophia eat 15 raisins in all. Nick and Alex each eat 4 raisins. How many raisins does Sophia eat?



_____ raisins

20. MATHEMATICAL PRACTICE 1 **Analyze**
There are 5 green grapes and 4 red grapes in a bowl. Eli puts 4 more grapes in the bowl. How many grapes are in the bowl now?

_____ grapes

21. THINK SMARTER Mrs. Moore bought 4 small apples, 6 medium apples, and 3 large apples. How many apples did she buy?

_____ apples

TAKE HOME ACTIVITY • Have your child describe two ways to add 3, 6, and 2.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Relate Addition and Subtraction

Essential Question How are addition and subtraction related?

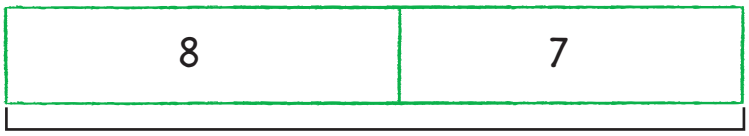
Operations and Algebraic Thinking—2.OA.2

MATHEMATICAL PRACTICES
MP.2, MP.7, MP.8

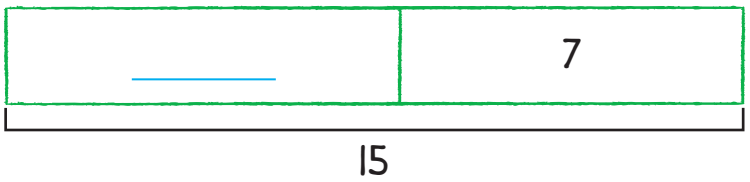
Listen and Draw

Real World

Complete the bar model to show the problem.



_____ soccer balls



_____ soccer balls

FOR THE TEACHER • Read the following problems. Have children complete the bar model for each. The soccer team has 8 red balls and 7 yellow balls. How many soccer balls does the team have? The soccer team has 15 balls inside the locker room. The children took the 7 yellow balls outside. How many soccer balls were inside?

Math Talk

Mathematical Practices

Explain how the bar models for the problems are alike and how they are different.

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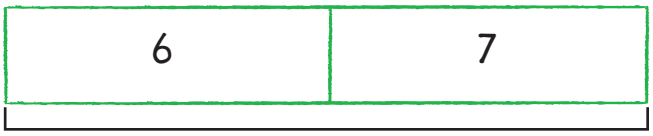
Model and Draw

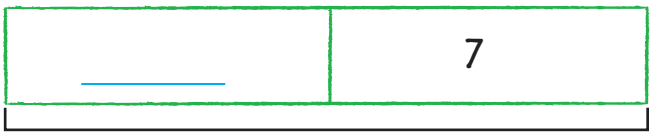
You can use addition facts to remember **differences**. Related facts have the same whole and parts.

Think of the addends in an addition fact to find the difference for a related subtraction fact.



13

$6 + 7 = 13$

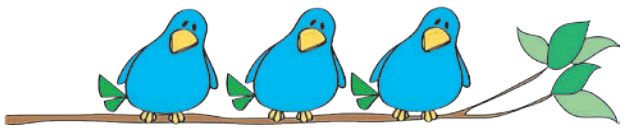


13

$13 - 7 =$ _____

Share and Show

MATH BOARD



Write the sum and the difference for the related facts.

1. $5 + 4 =$ ____
   $9 - 4 =$ ____

2. $2 + 7 =$ ____
   $9 - 2 =$ ____

3. $3 + 8 =$ ____
   $11 - 8 =$ ____

4. $5 + 8 =$ ____
   $13 - 5 =$ ____

5. ____ $= 1 + 8$
   ____ $= 9 - 1$

6. $9 + 9 =$ ____
   $18 - 9 =$ ____

7. ____ $= 8 + 7$
   ____ $= 15 - 8$

8. $4 + 7 =$ ____
   $11 - 7 =$ ____

9. $7 + 5 =$ ____
   $12 - 7 =$ ____

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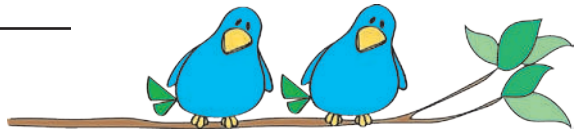
Name _____

On Your Own



Write the sum and the difference for the related facts.

10. $4 + 3 = \_\_\_\_$
$7 - 3 = \_\_\_\_$

11. $2 + 6 = \_\_\_\_$
$8 - 6 = \_\_\_\_$

12. $6 + 4 = \_\_\_\_$
$10 - 6 = \_\_\_\_$

13. $7 + 3 = \_\_\_\_$
$10 - 7 = \_\_\_\_$

14. $8 + 6 = \_\_\_\_$
$14 - 6 = \_\_\_\_$

15. $\_\_\_\_ = 3 + 9$
$\_\_\_\_ = 12 - 9$

16. $6 + 5 = \_\_\_\_$
$11 - 5 = \_\_\_\_$

17. $7 + 7 = \_\_\_\_$
$14 - 7 = \_\_\_\_$

18. $9 + 6 = \_\_\_\_$
$15 - 9 = \_\_\_\_$

19. $5 + 9 = \_\_\_\_$
$14 - 9 = \_\_\_\_$

20. $\_\_\_\_ = 4 + 8$
$\_\_\_\_ = 12 - 4$

21. $9 + 7 = \_\_\_\_$
$16 - 7 = \_\_\_\_$

MATHEMATICAL PRACTICE 6

Make Connections

Write a related subtraction fact for each addition fact.

22. $7 + 8 = 15$
_____

23. $5 + 7 = 12$
_____

24. $6 + 7 = 13$
_____

25. $9 + 8 = 17$
_____

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Problem Solving • Applications

WRITE Math

Solve. Write or draw to explain.

26. Trevor has 7 kites. Pam has 4 kites. How many more kites does Trevor have than Pam?

_____ more kites

27. THINK SMARTER Mr. Sims has a bag of 7 pears and a bag of 6 pears. His family eats 5 pears. How many pears does he have now?

_____ pears

28. THINK SMARTER Elin counts 7 geese in the water and some geese on the shore. There are 16 geese in all. Draw a picture to show the two groups of geese.

Write a number sentence that can help you find how many geese are on the shore.

_____

How many geese are on the shore? _____ geese

TAKE HOME ACTIVITY • Ask your child to name some subtraction facts that he or she knows well.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Practice Subtraction Facts

Essential Question What are some ways to remember differences?

Operations and Algebraic Thinking—2.OA.2

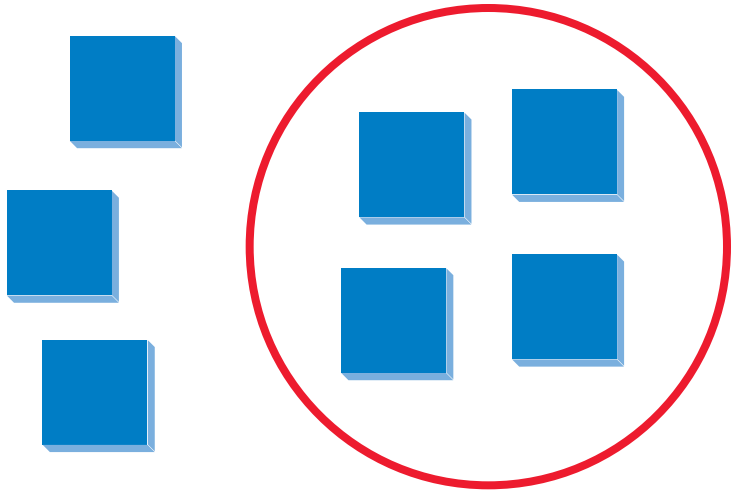
MATHEMATICAL PRACTICES
MP.1

Listen and Draw

Real World

Use Gina's model to answer the question.

Gina's Model



_____ _____

_____ _____

FOR THE TEACHER • Tell children that Gina put 4 color tiles inside the circle and then put 3 color tiles outside the circle. Then ask: What addition fact could be written for Gina's model? Repeat with stories for the three facts that are related to this addition fact.

Math Talk

Mathematical Practices

Explain how the different facts for Gina's model are related.

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Model and Draw

These are some ways to find differences.

You can count back by 1, 2, or 3.

$7 - 2 = \_\_\_\_$

Start with 7. Say: 6, 5.

$9 - 3 = \_\_\_\_$

Start with 9. Say: 8, 7, 6.

You can think about a missing addend to subtract.

$8 - 5 = \square$

$5 + 3 = 8$

So, $8 - 5 = \_\_\_\_$.

Share and Show

MATH BOARD

Write the difference.

1. $6 - 4 = \_\_\_\_$	2. $10 - 7 = \_\_\_\_$	3. $\_\_\_\_ = 5 - 2$
4. $14 - 6 = \_\_\_\_$	5. $\_\_\_\_ = 8 - 4$	6. $11 - 3 = \_\_\_\_$
7. $\_\_\_\_ = 7 - 5$	8. $10 - 4 = \_\_\_\_$	9. $5 - 0 = \_\_\_\_$
10. $13 - 9 = \_\_\_\_$	11. $9 - 3 = \_\_\_\_$	12. $\_\_\_\_ = 7 - 6$
13. $12 - 3 = \_\_\_\_$	14. $6 - 3 = \_\_\_\_$	15. $9 - 5 = \_\_\_\_$
16. $10 - 6 = \_\_\_\_$	17. $\_\_\_\_ = 8 - 3$	18. $13 - 5 = \_\_\_\_$

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Name _____

On Your Own

Write the difference.

19. $11 - 2 = \_\_\_\_$

20. $9 - 7 = \_\_\_\_$

21. $\_\_\_\_ = 7 - 4$

22. $12 - 5 = \_\_\_\_$

23. $8 - 6 = \_\_\_\_$

24. $\_\_\_\_ = 7 - 0$

25. $\_\_\_\_ = 10 - 5$

26. $15 - 8 = \_\_\_\_$

27. $13 - 7 = \_\_\_\_$

28. $10 - 8 = \_\_\_\_$

29. $8 - 5 = \_\_\_\_$

30. $\_\_\_\_ = 9 - 6$

31. $\_\_\_\_ = 9 - 4$

32. $11 - 8 = \_\_\_\_$

33. $12 - 7 = \_\_\_\_$

34. THINK SMARTER

Write the differences. Then write the next fact in the pattern.

$10 - 1 = \_\_\_\_$

$8 - 1 = \_\_\_\_$

$6 - 1 = \_\_\_\_$

$4 - 1 = \_\_\_\_$

_____

$12 - 9 = \_\_\_\_$

$13 - 9 = \_\_\_\_$

$14 - 9 = \_\_\_\_$

$15 - 9 = \_\_\_\_$

_____

$18 - 9 = \_\_\_\_$

$17 - 8 = \_\_\_\_$

$16 - 7 = \_\_\_\_$

$15 - 6 = \_\_\_\_$

_____

TAKE HOME ACTIVITY • With your child, practice saying subtraction facts from this lesson.

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Write the sum. (2.OA.2)

1. $3 + 6 =$ _____
2. $8 + 0 =$ _____
3. $7 + 7 =$ _____
4. $9 + 4 =$ _____
5. _____ $= 5 + 6$
6. $2 + 8 =$ _____
7. $3 + 7 + 2 =$ _____
8. $4 + 4 + 6 =$ _____

Show how you can make a ten to find the sum.
Write the sum. (2.OA.2)

9. $9 + 7 =$ _____

$10 +$ _____ $=$ _____

10. $6 + 8 =$ _____

$10 +$ _____ $=$ _____

Write the sum and the difference for the related facts. (2.OA.2)

11. $5 + 4 =$ _____

$9 - 4 =$ _____

12. $3 + 9 =$ _____

$12 - 9 =$ _____

13. $8 + 7 =$ _____

$15 - 8 =$ _____

14. THINK SMARTER Lily has 6 toys cars. Yong has 5 toy cars. How many toy cars do they have? (2.OA.2)

_____ toy cars

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Name _____

Use Ten to Subtract

Essential Question How does getting to 10 in subtraction help when finding differences?

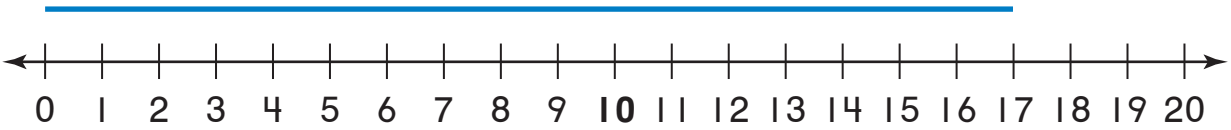
Operations and Algebraic Thinking—2.OA.2 *Also 2.MD.6*

MATHEMATICAL PRACTICES
MP.5, MP.8

Listen and Draw

Real World

Circle to show the amount you subtract for each problem.



FOR THE TEACHER • Read the following problem. Deveron has 13 crayons. He gives 3 crayons to Tyler. How many crayons does Deveron have now? Have children circle the part of the blue line segment that shows what is subtracted from the total. Repeat for two more problems.

Math Talk Mathematical Practices

Describe a pattern in the three problems and answers.

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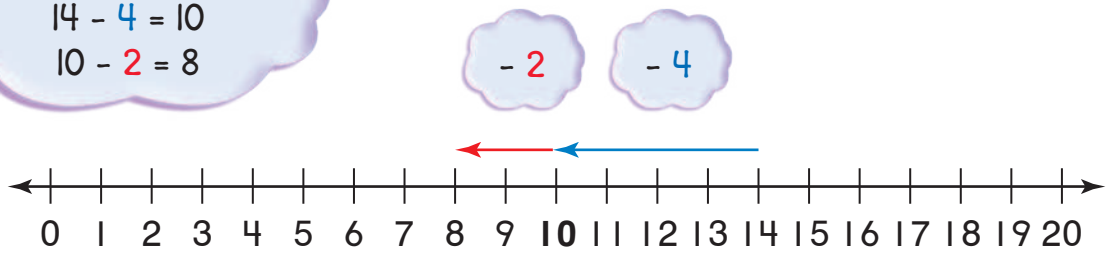
Model and Draw

You can subtract in steps to use a tens fact.

$14 - 6 = ?$

4 2

Subtract in steps:
14 - 4 = 10
10 - 2 = 8



So, $14 - 6 =$ 8 .

Share and Show

MATH BOARD

Show the tens fact you used. Write the difference.

1. $12 - 5 =$ ____

2 3

$10 -$ ____ $=$ ____

2. $11 - 6 =$ ____

1 5

$10 -$ ____ $=$ ____

3. $15 - 7 =$ ____

$10 -$ ____ $=$ ____

4. $13 - 7 =$ ____

$10 -$ ____ $=$ ____

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Name _____

On Your Own

Show the tens fact you used. Write the difference.

5. 13 − 5 = _____

10 − _____ = _____

6. 15 − 6 = _____

10 − _____ = _____

7. 12 − 8 = _____

10 − _____ = _____

8. 14 − 8 = _____

10 − _____ = _____

9. 12 − 6 = _____

10 − _____ = _____

10. 16 − 7 = _____

10 − _____ = _____

Solve. Write or draw to explain.

11. THINK SMARTER Beth has a box of 16 crayons. She gives 3 crayons to Jake and 7 crayons to Wendy. How many crayons does Beth have now?

_____ crayons

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Problem Solving • Applications

WRITE Math

GO DEEPER Write number sentences that use both addition and subtraction. Use each choice only once.

~~9 − 2~~
~~3 + 4~~
1 + 4
14 − 6
5 + 4
15 − 6
10 − 5
4 + 4

12. $\underset{\diagdown\ \diagup}{9-2} = \underset{\diagdown\ \diagup}{3+4}$

$7 = 7$

13. _____ = _____

14. _____ = _____

15. _____ = _____

16. THINK SMARTER Does the number sentence have the same difference as $15 - 7 = \square$? Choose Yes or No.

$10 - 6 = \square$	○ Yes	○ No
$10 - 2 = \square$	○ Yes	○ No
$10 - 4 = \square$	○ Yes	○ No

TAKE HOME ACTIVITY • Ask your child to name pairs of numbers that have a difference of 10. Then have him or her write the number sentences.

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Name _____

Algebra • Use Drawings to Represent Problems

Essential Question How are bar models used to show addition and subtraction problems?

Operations and Algebraic Thinking—2.OA.1

MATHEMATICAL PRACTICES
MP.1, MP.4

Listen and Draw

Real World

Complete the bar model to show the problem.
Complete the number sentence to solve.

_____ + _____ = _____ _____ pennies

_____ − _____ = _____ _____ pennies

Math Talk Mathematical Practices

Explain how the problems are alike and how they are different.

FOR THE TEACHER • Read each problem and have children complete the bar models. Hailey has 5 pennies in her pocket and 7 pennies in her wallet. How many pennies does she have? Blake has 12 pennies in his bank. He gives 5 pennies to his sister. How many pennies does he have now?

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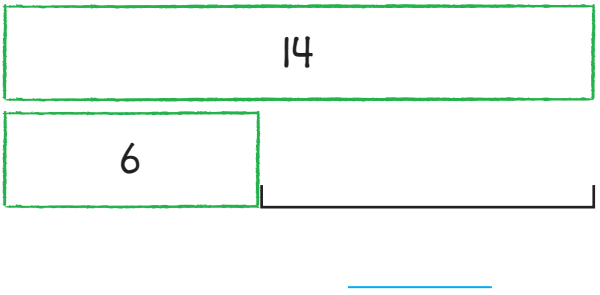
Model and Draw

You can use bar models to show problems.

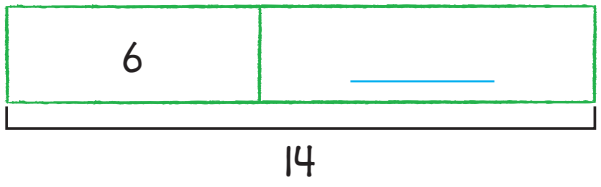
Ben eats 14 crackers. Ron eats 6 crackers. How many more crackers does Ben eat than Ron?



14 − 6 = 8

_____ more crackers

Suzy had 14 cookies. She gave 6 cookies to Grace. How many cookies does Suzy have now?



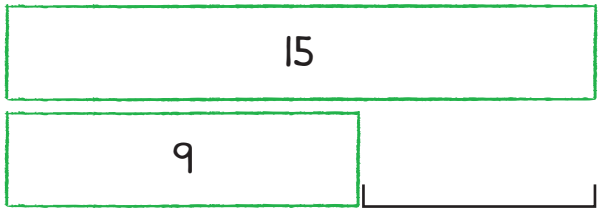
_____ cookies

Share and Show

MATH BOARD

Complete the bar model. Then write a number sentence to solve.

1. Mr. James bought 15 plain bagels and 9 raisin bagels. How many more plain bagels than raisin bagels did he buy?



_____ more plain bagels

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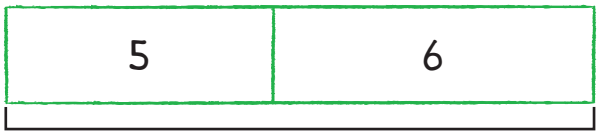
Name _____

On Your Own

Complete the bar model. Then write a number sentence to solve.

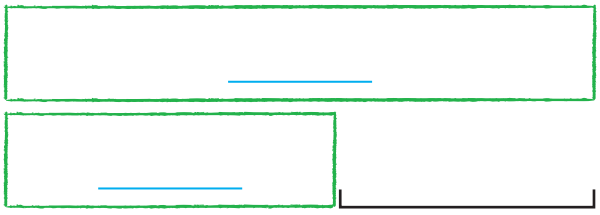
2. Cole has 5 books about dogs and 6 books about cats. How many books does Cole have?



_____

_____ books

3. THINK SMARTER Anne has 16 blue clips and 9 red clips. How many more blue clips than red clips does she have?

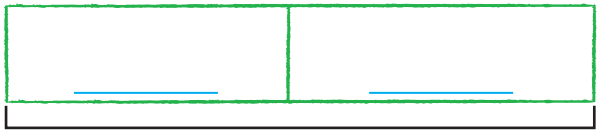


_____

_____ more blue clips

4. GO DEEPER Fill in the blank. Then label the bar model and solve.

Miss Gore had 18 pencils. She gave ____ pencils to Erin. How many pencils does Miss Gore have now?



_____ pencils

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Problem Solving • Applications (Real World) WRITE Math

Use the information in the table to solve. Write or draw to explain.

5. Jenna put all of the roses and all of the tulips into a vase. How many flowers did she put into the vase?

_____ flowers

Jenna's Flowers

Flowers	Number
roses	6
tulips	8
daisies	11

6. THINK SMARTER Four of the daisies are white. The other daisies are yellow. How many daisies are yellow?

_____ yellow daisies

7. THINK SMARTER Rita counts 4 frogs in the grass and some other frogs in the water. There are 10 frogs in all. How many frogs are in the water? Draw a picture and write a number sentence to solve.

_____

_____ frogs are in the water.

TAKE HOME ACTIVITY • Ask your child to describe what he or she learned in this lesson.

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Name _____

Algebra • Use Equations to Represent Problems

Essential Question How are number sentences used to show addition and subtraction situations?

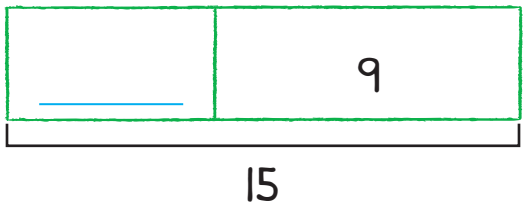
Operations and Algebraic Thinking—2.OA.1

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Listen and Draw

Real World

Write a story problem that could be solved using this bar model.



Math Talk

Mathematical Practices

Would you add or subtract to solve your story problem? **Explain.**

FOR THE TEACHER • Discuss with children how this bar model can be used to represent an addition or a subtraction situation.

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Model and Draw

A number sentence can be used to show a problem.

There were some girls and 4 boys at the park. There were 9 children in all. How many girls were at the park?

$\square + 4 = 9$

The $\square$ is a placeholder for the missing number.

Think: $5 + 4 = 9$

So, there were 5 girls at the park.

Share and Show

MATH BOARD

Write a number sentence for the problem.

Use a $\square$ for the missing number. Then solve.

1. There were 14 ants on the sidewalk. Then 6 ants went into the grass. How many ants were still on the sidewalk?

_____

_____ ants

2. There were 7 big dogs and 4 little dogs at the park. How many dogs were at the park?

_____

_____ dogs

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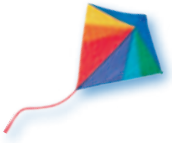
Name _____

On Your Own

Write a number sentence for the problem.
Use a ☐ for the missing number. Then solve.

3. A group of children were flying 13 kites. Some kites were put away. Then the children were flying 7 kites. How many kites were put away?



_____

_____ kites

4. There are 18 boys at the field. 9 of the boys are playing soccer. How many boys are not playing soccer?

_____

_____ boys

5. MATHEMATICAL PRACTICE 2 **Use Reasoning**
Matthew found 9 acorns. Greg found 6 acorns. How many acorns did the two boys find?

_____

_____ acorns

6. THINK SMARTER There were some ducks in a pond. Four more ducks joined them. Then there were 12 ducks in the pond. How many ducks were in the pond at first?

_____ ducks

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Problem Solving • Applications (Real World) WRITE Math

Read the story. Write or draw to show how you solved the problems.

At camp, 5 children are playing games and 4 children are making crafts. 5 other children are having a snack.

7. How many children are at camp?

_____ children

8. GO DEEPER Suppose 7 more children arrive at camp and join the children playing games. How many more children are playing games than children not playing games?

_____ more children

Personal Math Trainer

9. THINK SMARTER + Ashley had 9 crayons. She gave 4 crayons to her brother. How many crayons does Ashley have now? Write a number sentence for the problem. Use ☐ for the missing number. Then solve.

_____

Ashley has _____ crayons now.

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one of the problems on this page.

FOR MORE PRACTICE: Standards Practice Book

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Problem Solving • Equal Groups

Essential Question How can acting it out help when solving a problem about equal groups?

Number and Operations in Base Ten—2.NBT.2 *Also 2.OA.4*

MATHEMATICAL PRACTICES
MP.1, MP.5, MP.7

Theo puts his stickers in 5 rows.
There are 2 stickers in each row.
How many stickers does Theo have?

Unlock the Problem

Real World

Hands On

What do I need to find?

how many stickers

Theo has

What information do I need to use?

5 rows of stickers

2 stickers in each row

Show how to solve the problem.

HOME CONNECTION • Your child used counters to act out the problem. Counters are a concrete tool that helps children act out the problem.

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Try Another Problem

Act out the problem.
Draw to show what you did.

- What do I need to find?
- What information do I need to use?

1. Maria puts all of her postcards in 6 rows. There are 2 postcards in each row. How many postcards does Maria have? _____ postcards

2. Jamal puts 2 toys in each box. How many toys will he put in 8 boxes? _____ toys

Math Talk **Mathematical Practices**

Explain how acting it out and skip counting helped you solve the second problem.

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Name _____

Share and Show

MATH BOARD

Act out the problem.
Draw to show what you did.

3. Mr. Fulton puts 2 bananas on each tray. How many bananas are on 6 trays?

_____ bananas

4. There are 7 rows of apples. There are 2 apples in each row. How many apples are there?

_____ apples

5. THINK SMARTER There are 4 plates. Dexter puts 2 grapes on each plate. Then he puts 2 grapes on each of 6 more plates. How many grapes in all does he put on the plates?

_____ grapes

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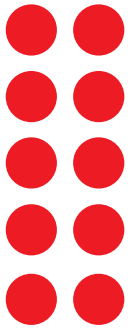
Problem Solving • Applications

WRITE Math

6. MATHEMATICAL PRACTICE 6 **Make Connections**

Angela used these counters to act out a problem.



Write a problem about equal groups that Angela could have modeled with these counters.

_____

_____

_____

7. THINK SMARTER Max and 8 friends get books from the library. Each person gets 2 books. Draw a picture to show the groups of books.

How many books did they get?

_____ books

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one of the problems in this lesson.

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Name _____

Algebra • Repeated Addition

Essential Question How can you write an addition sentence for problems with equal groups?

Operations and Algebraic Thinking—2.OA.4

MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Use counters to model the problem.
Then draw a picture of your model.

Math Talk **Mathematical Practices**

Describe how you found the number of counters in your model.

FOR THE TEACHER • Read the following problem and have children first model the problem with counters and then draw a picture of their models. Clayton has 3 rows of cards. There are 5 cards in each row. How many cards does Clayton have?

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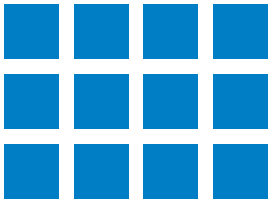
Model and Draw

You can use addition to find the total amount when you have equal groups.



3 rows of 4

Write: 4 + 4 + 4 = ____

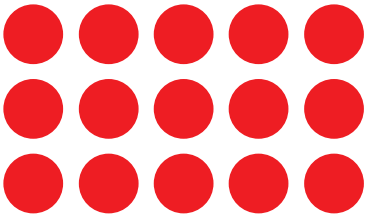
____ in all

Share and Show

MATH BOARD

Find the number of shapes in each row.
Complete the addition sentence to find the total.

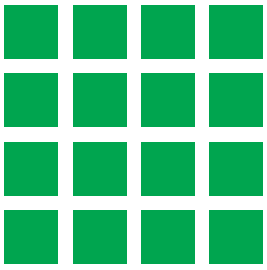
1.



3 rows of ____

____ + ____ + ____ = ____

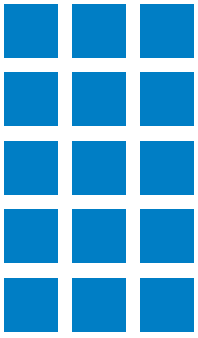
2.



4 rows of ____

__ + __ + __ + __ = ____

3.



5 rows of ____

____ + ____ + ____ + ____ + ____ = ____

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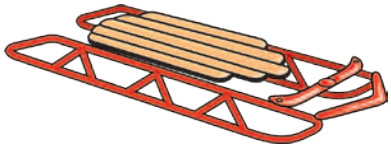
Name _____



On Your Own

Find the number of shapes in each row.
Complete the addition sentence to find the total.

4.

2 rows of _____

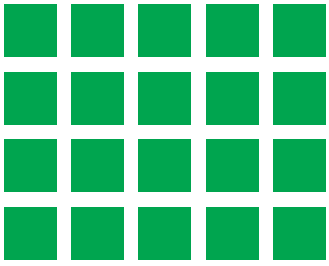
____ + ____ = _____

5.

3 rows of _____

____ + ____ + ____ = _____

6.



4 rows of _____

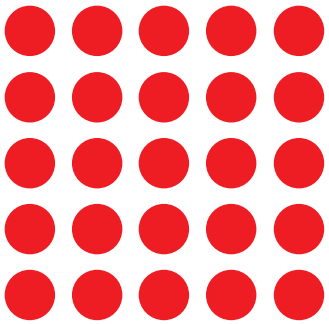
__ + __ + __ + __ = _____

7.

4 rows of _____

__ + __ + __ + __ = _____

8.



5 rows of _____

____ + ____ + ____ + ____ + ____ = _____

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

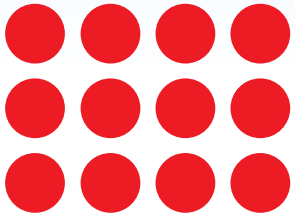
9. THINK SMARTER There are 6 photos on the wall. There are 2 photos in each row. How many rows of photos are there?

_____ rows

10. GO DEEPER Mrs. Chen makes 5 rows of 2 chairs and 2 rows of 3 chairs. How many chairs does Mrs. Chen use?

_____ chairs

11. THINK SMARTER Find the number of counters in each row. Complete the number sentence to find the total number of counters.



____ + ____ + ____ = ____

_____ counters

TAKE HOME ACTIVITY • Have your child use small objects to make 2 rows with 4 objects in each row. Then have your child find the total number of objects.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 3 Review/Test

1. Erin puts 3 small cans, 4 medium cans, and 5 large cans on a shelf. How many cans does she put on the shelf?

_____ cans

2. Fill in the bubble next to all the doubles facts you could use to find the sum of 3 + 2?

- ○ 2 + 2
- ○ 5 + 5
- ○ 3 + 3
- ○ 1 + 1

3. Does the number sentence have the same difference as 14 − 6 = ▢? Choose Yes or No.

10 − 1 = ▢	○ Yes	○ No
10 − 2 = ▢	○ Yes	○ No
10 − 3 = ▢	○ Yes	○ No
10 − 4 = ▢	○ Yes	○ No

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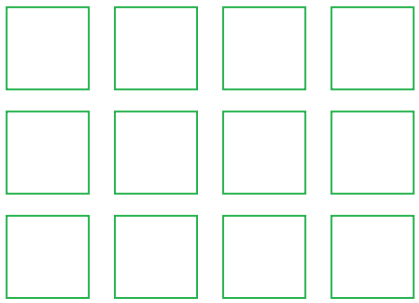
4. Mr. Brown sold 5 red backpacks and 8 blue backpacks. Write the number sentence. Show how you can make a ten to find the sum. Write the sum.

$5 + 8 = \_\_\_\_\_$

$10 + \_\_\_\_\_ = \_\_\_\_\_$

---

5. Find the number of shapes in each row.



3 rows of _____

Complete the addition sentence to find the total.

_____ + _____ + _____ = _____

---

6. Tanya and 2 friends put rocks on the table. Each person put 2 rocks on the table. Draw a picture to show the groups of rocks.

How many rocks did they put on the table?

_____ rocks

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Name _____

7. Lily sees 15 tan puppies and 8 white puppies at the pet store. How many more tan puppies than white puppies does she see? Draw a picture and write a number sentence to solve.

_____

_____ more tan puppies

8. Mark counts 6 ducks in a pond and some ducks on the grass. There are 14 ducks in all. Draw a picture to show the two groups of ducks.

Write a number sentence that can help you find how many ducks are on the grass.

_____ + _____ = _____

How many ducks are on the grass? _____ ducks

9. There are 8 peaches in a basket. Mrs. Dalton puts 7 more peaches in the basket. Complete the addition sentence to find how many peaches are in the basket now.

_____ + _____ = _____

_____ peaches

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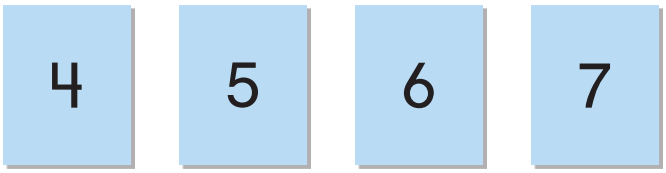
10. Use the numbers on the tiles to write the differences.

Then write the next fact in the pattern.



$12 - 6 =$ _____ $11 - 6 =$ _____

$12 - 7 =$ _____ $12 - 6 =$ _____

$12 - 8 =$ _____ $13 - 6 =$ _____

_____ _____

11. Jose wanted to share 18 strawberries with his brother equally. Draw a picture to show how Jose can share the strawberries.

How many strawberries will Jose receive?

_____ strawberries

12. Hank has 13 grapes. He gives 5 grapes to his sister. How many grapes does Hank have now? Write a number sentence for the problem. Use ☐ for the missing number. Then solve.

_____

_____ grapes

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Chapter 4

2-Digit Addition

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Curious about Math

The keys of a modern piano are made from wood or plastic. A modern piano has 36 black keys and 52 white keys. How many keys is this in all?

Name _____

Show What You Know

Addition Patterns

Add 2. Complete each addition sentence.

1. 1 + 2 = 3
2. 2 + ____ = ____
3. 3 + ____ = ____
4. 4 + ____ = ____
5. 5 + ____ = ____
6. 6 + ____ = ____

Addition Facts

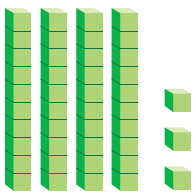
Write the sum.

7. $\begin{array}{r} 7 \\ +\ 3 \\ \hline \end{array}$
8. $\begin{array}{r} 8 \\ +\ 8 \\ \hline \end{array}$
9. $\begin{array}{r} 6 \\ +\ 7 \\ \hline \end{array}$
10. $\begin{array}{r} 4 \\ +\ 4 \\ \hline \end{array}$
11. $\begin{array}{r} 9 \\ +\ 5 \\ \hline \end{array}$
12. $\begin{array}{r} 8 \\ +\ 7 \\ \hline \end{array}$

Tens and Ones

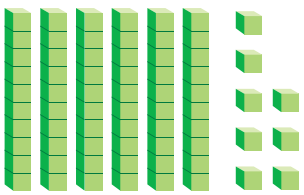
Write how many tens and ones for each number.

13. 43



____ tens ____ ones

14. 68



____ tens ____ ones

This page checks understanding of important skills needed for success in Chapter 4.

Personal Math Trainer
Online Assessment and Intervention

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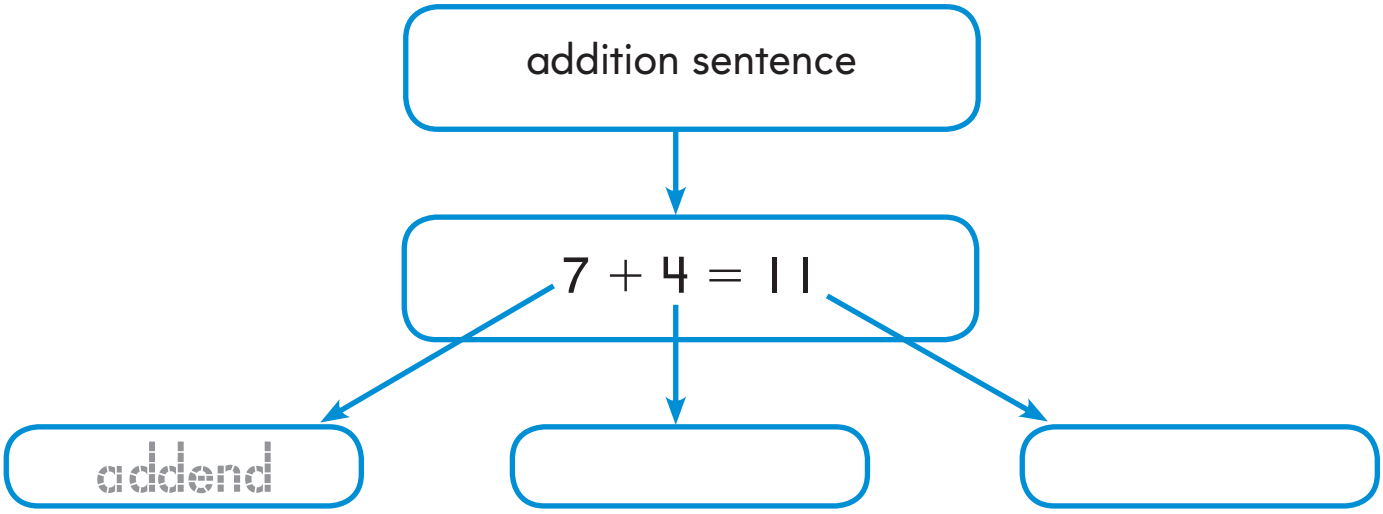
Name _____

Vocabulary Builder

Review Words
sum
addend
digit
tens
ones

Visualize It

Use review words to fill in the graphic organizer.



Understand Vocabulary

1. Write a number with the **digit** 3 in the **tens** place. _____

2. Write a number with the **digit** 5 in the **ones** place. _____

3. Write a number that has the same **digit** in the **tens** place and in the **ones** place. _____

4. Write a number with **digits** that have a **sum** of 8. _____

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Game What is the Sum?

Materials

- 12 red
- 12 yellow
- 1

Play with a partner.

1. Put your red on START.
2. Toss the . Move that many spaces.
3. Say the sum. Your partner checks your answer.
4. If your answer is correct, find that number in the middle of the board. Put one of your red on that number.
5. Take turns until both players reach FINISH. The player with more red on the board wins.

START

FINISH

7	18	9	11	15
13	6	17	8	10
16	4	12	14	5

2 + 7 | 6 + 5 | 3 + 9 | 0 + 7 | 8 + 6

9 + 8 | 6 + 2

1 + 4 | 8 + 7

5 + 8 | 9 + 9 | 7 + 9 | 2 + 2 | 4 + 6 | 5 + 1

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Name _____

Break Apart Ones to Add

Essential Question How does breaking apart a number make it easier to add?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Real World

Hands On

Use . Draw to show what you did.

Math Talk **Mathematical Practices**

Describe what you did with the blocks.

FOR THE TEACHER • Read the following problem. Have children use blocks to solve. Griffin read 27 books about animals and 6 books about space. How many books did he read?

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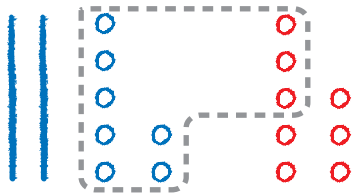
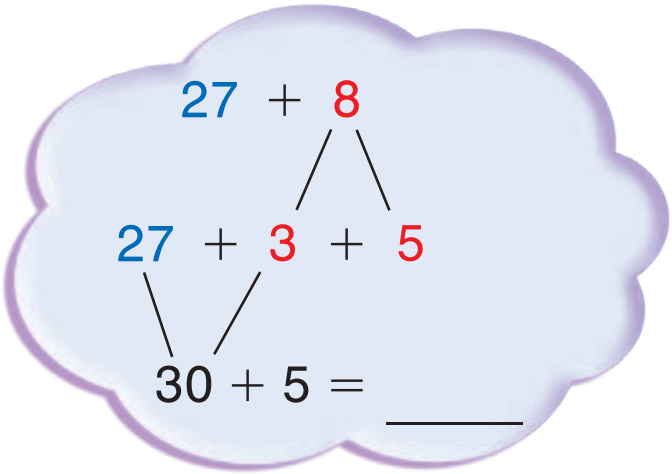
Model and Draw

Break apart ones to make a ten.
Use this as a way to add.

$27 + 8 = \underline{\quad ? \quad}$



$27 + 8 = \underline{\qquad}$

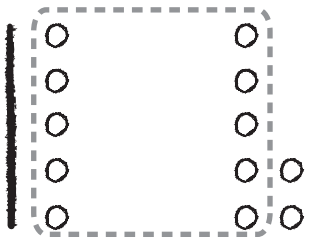


Share and Show

MATH BOARD

Draw quick pictures. Break apart ones to make a ten. Then add and write the sum.

1. $15 + 7 = \underline{\qquad}$



2. $26 + 5 = \underline{\qquad}$

3. $37 + 8 = \underline{\qquad}$

4. $28 + 6 = \underline{\qquad}$

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Name _____

On Your Own

Break apart ones to make a ten.
Then add and write the sum.

5. $23 + 9 =$ _____

6. $48 + 5 =$ _____

7. $18 + 5 =$ _____

8. $33 + 9 =$ _____

9. $27 + 6 =$ _____

10. $49 + 4 =$ _____

11. $24 + 8 =$ _____

12. $58 + 7 =$ _____

13. $36 + 8 =$ _____

14. $47 + 9 =$ _____

15. THINK SMARTER Bruce sees 29 oak trees and 4 maple trees at the park. Then he sees double the number of pine trees as maple trees. How many trees does Bruce see?

_____ trees

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

16. GO DEEPER Megan has 38 animal pictures, 5 people pictures, and 3 insect pictures. How many pictures does she have?

_____ pictures

17. MATHEMATICAL PRACTICE 1 **Analyze**

Jamal has a box with some toy cars in it. He puts 3 more toy cars into the box. Now there are 22 toy cars in the box. How many toy cars were in the box before?

_____ toy cars

18. THINK SMARTER Dan has 16 pencils. Quentin gives him 5 more pencils. Choose all the ways you can use to find how many pencils Dan has in all.

- ○ 16 + 5
- ○ 16 + 4 + 1
- ○ 16 − 5

TAKE HOME ACTIVITY • Say a number from 0 to 9. Have your child name a number to add to yours to have a sum of 10.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Use Compensation

Essential Question How can you make an addend a ten to help solve an addition problem?

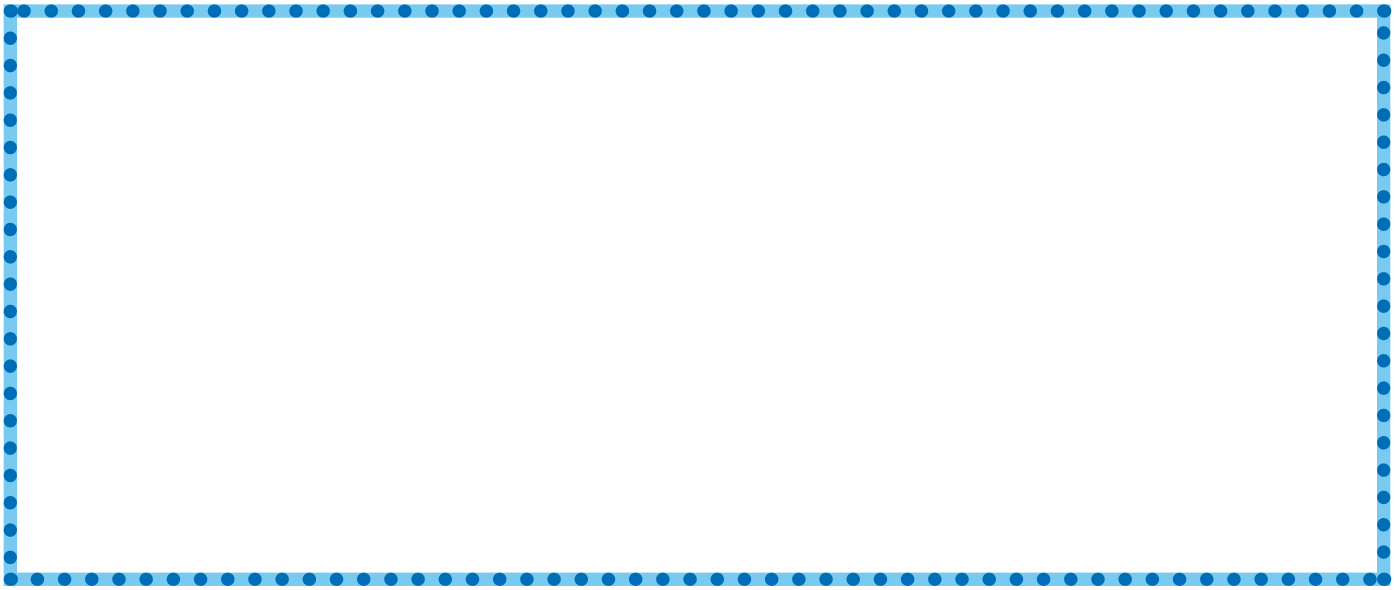
Number and Operations in Base Ten—2.NBT.5

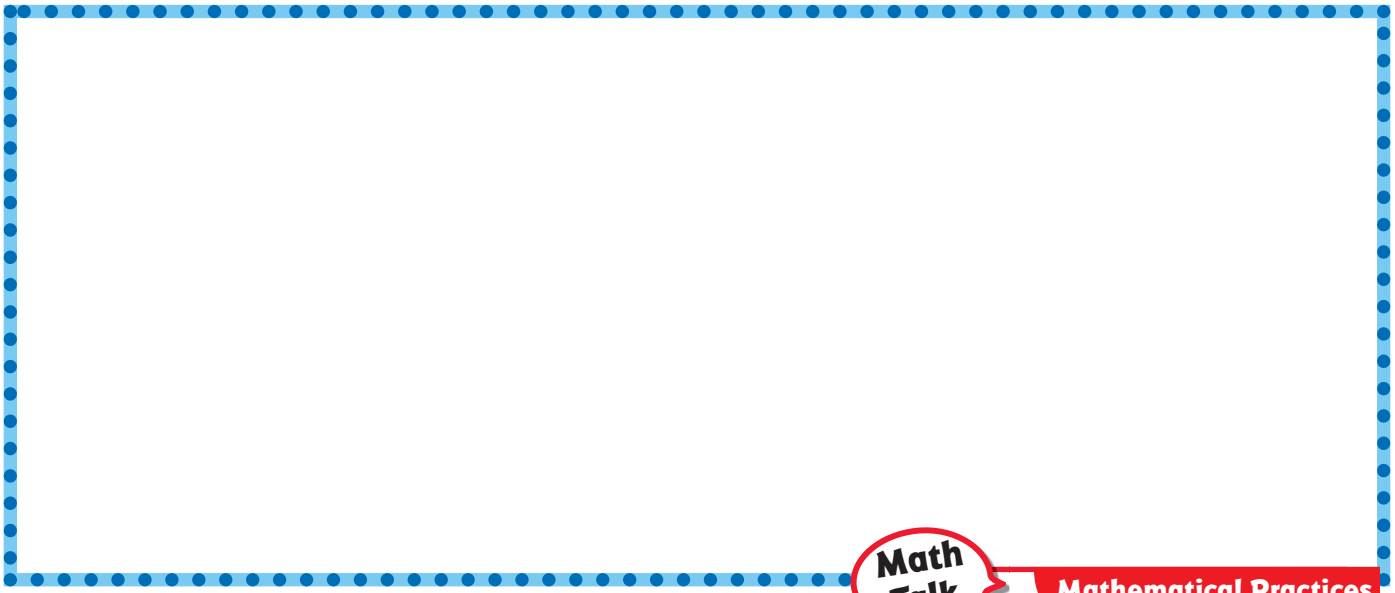
MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Real World

Draw quick pictures to show the problems.





Math Talk **Mathematical Practices**

Describe how you found how many stickers Tyrone has.

FOR THE TEACHER • Have children draw quick pictures to solve this problem. Kara has 47 stickers. She buys 20 more stickers. How many stickers does she have now? Repeat for this problem. Tyrone has 30 stickers and buys 52 more stickers. How many stickers does he have now?

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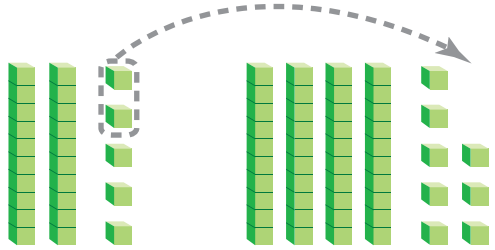
Model and Draw

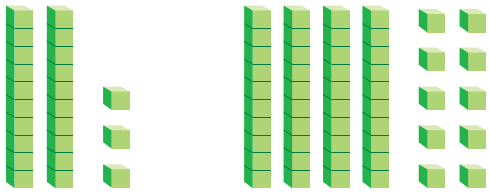
Take ones from an addend to make the other addend the next tens number.

$25 + 48 = ?$



Adding can be easier when one of the addends is a tens number.

$\underline{23} + \underline{50} = \underline{\quad}$

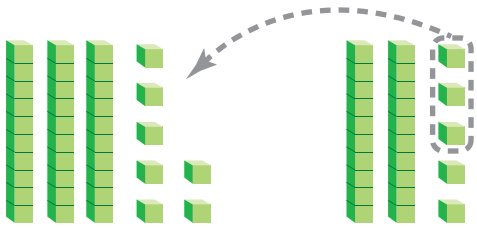


Share and Show

MATH BOARD

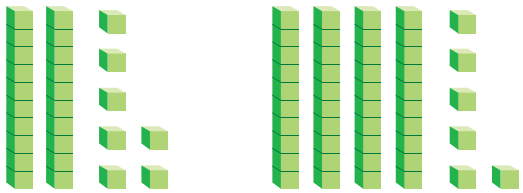
Show how to make one addend the next tens number. Complete the new addition sentence.

1. $37 + 25 = ?$



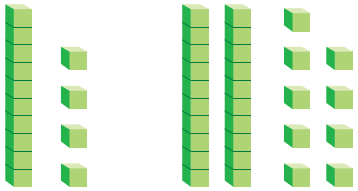
$\underline{40} + \underline{\quad} = \underline{\quad}$

2. $27 + 46 = ?$



$\underline{\quad} + \underline{\quad} = \underline{\quad}$

3. $14 + 29 = ?$



$\underline{\quad} + \underline{\quad} = \underline{\quad}$

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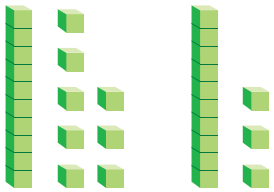
Name _____

On Your Own

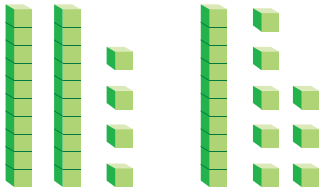
Show how to make one addend the next tens number. Complete the new addition sentence.

4. 18 + 13 = ?



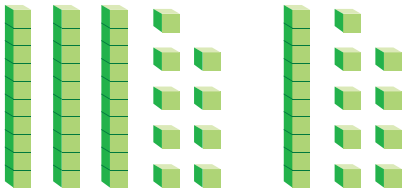
____ + ____ = ____

5. 24 + 18 = ?



____ + ____ = ____

6. 39 + 19 = ?



____ + ____ = ____

Solve. Write or draw to explain.

7. THINK SMARTER Zach finds 38 sticks. Kelly finds 27 sticks. How many more sticks do the two children still need if they want 70 sticks in all?

____ more sticks

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

8. MATHEMATICAL PRACTICE 6 **Make Connections**

The chart shows the leaves that Philip collected. He wants a collection of 52 leaves, using only two colors. Which two colors of leaves should he use?

_____ and _____

Leaves Collected	
Color	**Number**
green	27
brown	29
yellow	25

9. THINK SMARTER Ava has 39 sheets of white paper. She has 22 sheets of green paper. Draw a picture and write to explain how to find the number of sheets of paper Ava has.

Ava has _____ sheets of paper.

TAKE HOME ACTIVITY • Have your child choose one problem on this page and explain how to solve it in another way.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Break Apart Addends as Tens and Ones

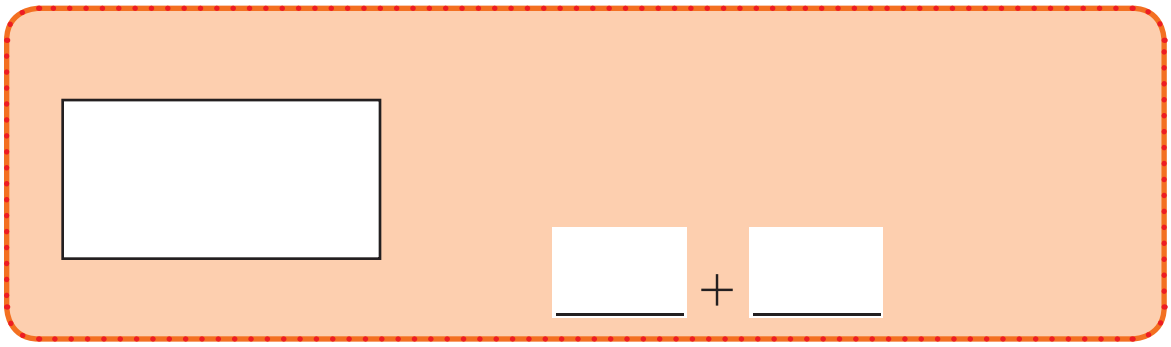
Essential Question How do you break apart addends to add tens and then add ones?

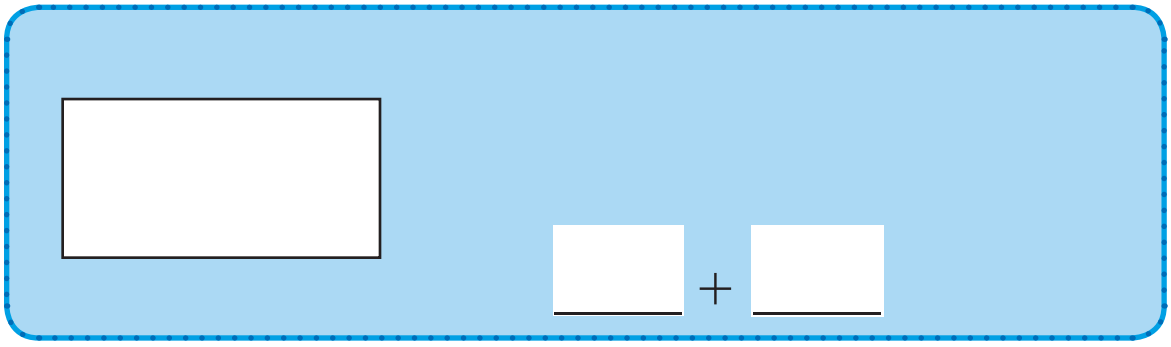
Number and Operations in Base Ten—2.NBT.5

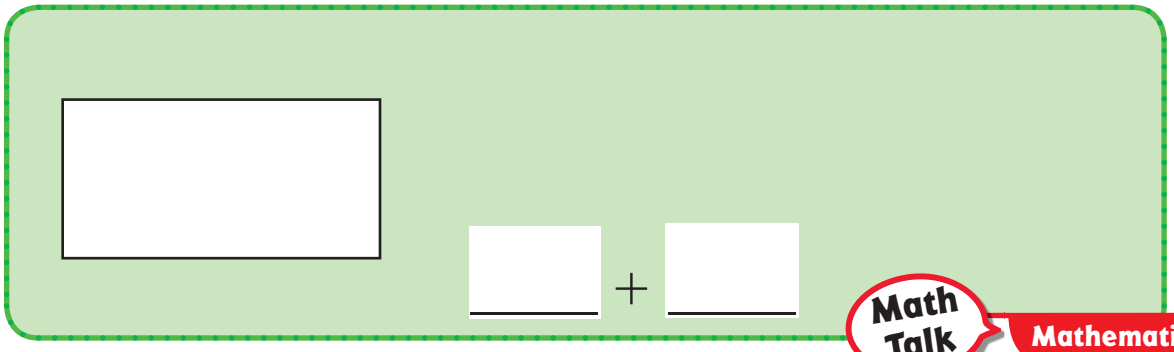
MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Write the number. Then write the number as tens plus ones.







Math Talk **Mathematical Practices**

What is the value of the 6 in the number 63? **Explain** how you know.

FOR THE TEACHER • Direct children's attention to the orange box. Have children write 25 inside the large rectangle. Then ask children to write 25 as tens plus ones. Repeat the activity for 36 and 42.

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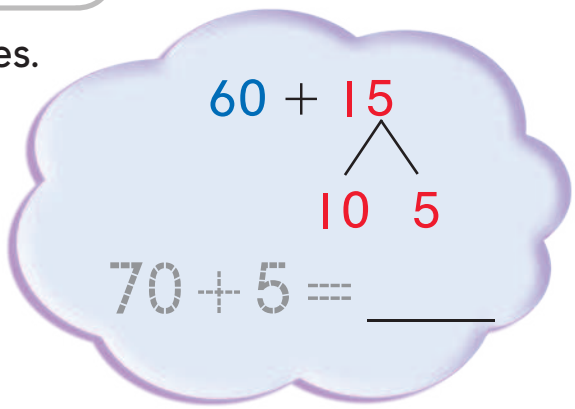
Model and Draw

Break apart the addends into tens and ones.
Add the tens and add the ones.
Then find the total sum.

$$\begin{array}{r} 27 \\ +\,48 \end{array} \longrightarrow \begin{array}{l} 20 + 7 \\ \underline{40 + 8} \\ 60 + 15 = \_\_\_\_ \end{array}$$



Share and Show

MATH BOARD

Break apart the addends to find the sum.

1. $\begin{array}{r} 35 \\ +\,54 \end{array} \longrightarrow \begin{array}{l} \_\_\_\_ + \_\_\_\_ \\ \underline{\quad\quad\quad\quad} \\ \_\_\_\_ + \_\_\_\_ = \_\_\_\_ \end{array}$

2. $\begin{array}{r} 43 \\ +\,29 \end{array} \longrightarrow \begin{array}{l} \_\_\_\_ + \_\_\_\_ \\ \underline{\quad\quad\quad\quad} \\ \_\_\_\_ + \_\_\_\_ = \_\_\_\_ \end{array}$

3. $\begin{array}{r} 56 \\ +\,38 \end{array} \longrightarrow \begin{array}{l} \_\_\_\_ + \_\_\_\_ \\ \underline{\quad\quad\quad\quad} \\ \_\_\_\_ + \_\_\_\_ = \_\_\_\_ \end{array}$

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Name _____

On Your Own

Break apart the addends to find the sum.

4. 14 → _____ + _____

+23 → _____ + _____

_____ + _____ = _____

5. 37 → _____ + _____

+45 → _____ + _____

_____ + _____ = _____

6. 54 → _____ + _____

+16 → _____ + _____

_____ + _____ = _____

7. THINK SMARTER Julie read 18 pages of her book in the morning. She read the same number of pages in the afternoon. How many pages did she read?

_____ pages

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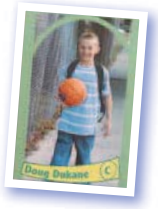
Problem Solving • Applications (Real World) WRITE Math

Write or draw to explain.

8. MATHEMATICAL PRACTICE 1 **Make Sense of Problems** Len has 35 baseball cards. The rest of his cards are basketball cards. He has 58 cards in all. How many basketball cards does he have?



_____ basketball cards

9. MATHEMATICAL PRACTICE 1 **Evaluate** Tomás has 17 pencils. He buys 26 more pencils. How many pencils does Tomás have now?

_____ pencils

Personal Math Trainer

10. THINK SMARTER + Sasha used 38 red stickers and 22 blue stickers. Show how you can break apart the addends to find how many stickers Sasha used.

38 → _____ + _____

+22 → _____ + _____

_____ + _____ = _____

TAKE HOME ACTIVITY • Write 32 + 48 on a sheet of paper. Have your child break apart the numbers and find the sum.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Model Regrouping for Addition

Essential Question When do you regroup in addition?

Number and Operations in Base Ten—2.NBT.5

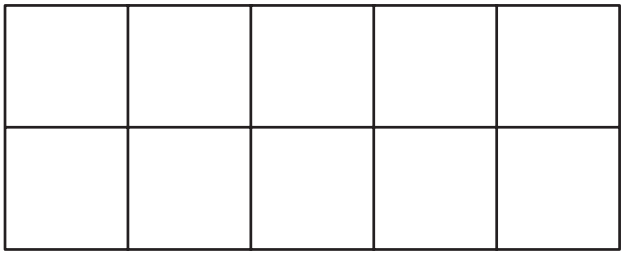
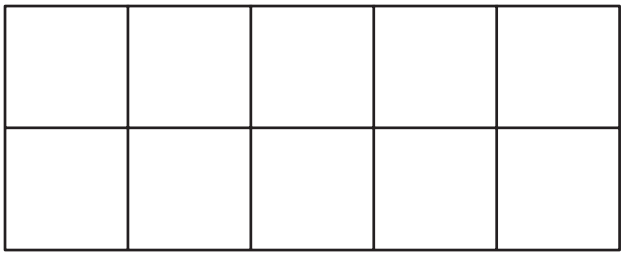
MATHEMATICAL PRACTICES
MP.5, MP.7

Listen and Draw

Real World

Hands On

Use to model the problem.
Draw quick pictures to show what you did.

Tens	Ones
	
	

Math Talk **Mathematical Practices**

Describe how you made a ten in your model.

FOR THE TEACHER • Read the following problem. Brandon has 24 books. His friend Mario has 8 books. How many books do they have?

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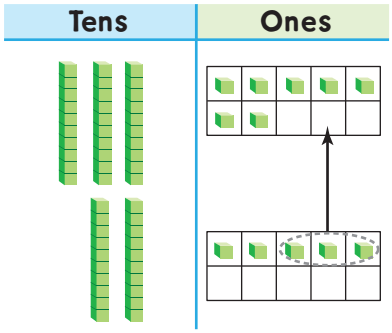
Model and Draw

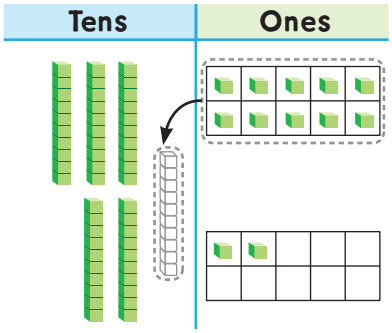
Add 37 and 25.

Step 1 Look at the ones. Can you make a ten?



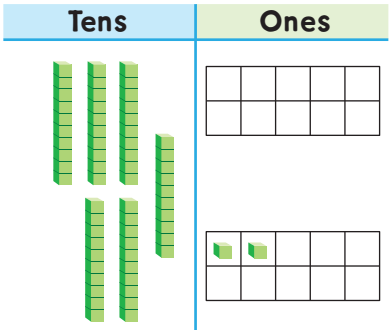
yes no

Step 2 If you can make a ten, **regroup**.



Trade 10 ones for 1 ten to regroup.

Step 3 Write how many tens and ones. Write the sum.



_____ tens _____ ones

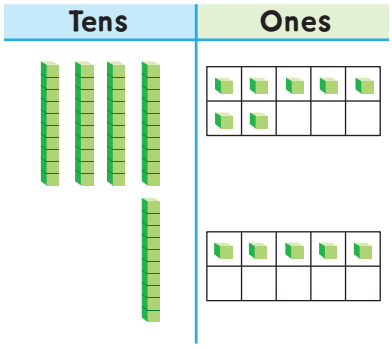
_____

Share and Show

MATH BOARD

Draw to show the regrouping. Write how many tens and ones in the sum. Write the sum.

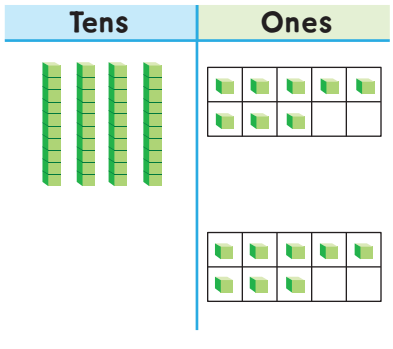
1. Add 47 and 15.



_____ tens _____ ones

_____

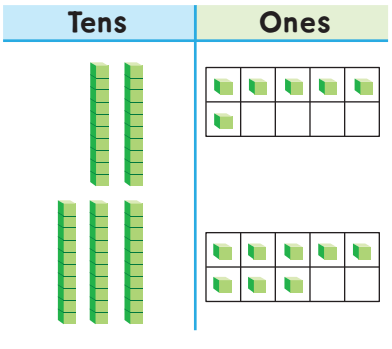
2. Add 48 and 8.



_____ tens _____ ones

_____

3. Add 26 and 38.



_____ tens _____ ones

_____

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Name _____

On Your Own

Draw to show if you regroup. Write how many tens and ones in the sum. Write the sum.

4. Add 79 and 6.

Tens	Ones

_____ tens _____ ones

_____

5. Add 18 and 64.

Tens	Ones

_____ tens _____ ones

_____

6. Add 23 and 39.

Tens	Ones

_____ tens _____ ones

_____

7. Add 54 and 25.

Tens	Ones

_____ tens _____ ones

_____

8. Add 33 and 7.

Tens	Ones

_____ tens _____ ones

_____

9. Add 27 and 68.

Tens	Ones

_____ tens _____ ones

_____

10. THINK SMARTER Kara has 25 toy animals and 12 books. Jorge has 8 more toy animals than Kara has. How many toy animals does Jorge have?

_____ toy animals

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Problem Solving • Applications (Real World) WRITE Math

Write or draw to explain.

11. MATHEMATICAL PRACTICE 1 **Make Sense of Problems** Mrs. Sanders has two fish tanks. There are 14 fish in the small tank. There are 27 fish in the large tank. How many fish are in the two tanks?

_____ fish

12. THINK SMARTER Charlie climbed 69 steps. Then he climbed 18 more steps. Show two different ways to find how many steps Charlie climbed.

Charlie climbed _____ steps.

TAKE HOME ACTIVITY • Ask your child to write a word problem with 2-digit numbers about adding two groups of stamps.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Model and Record 2-Digit Addition

Essential Question How do you record 2-digit addition?

Number and Operations in Base Ten—2.NBT.5 *Also 2.NBT.9*

MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw

Real World

Use to model the problem.
Draw quick pictures to show what you did.

Tens	Ones

Math Talk **Mathematical Practices**

Did you trade blocks in your model? **Explain** why or why not.

FOR THE TEACHER • Read the following problem. Mr. Riley's class collected 54 cans for the food drive. Miss Bright's class collected 35 cans. How many cans did the two classes collect?

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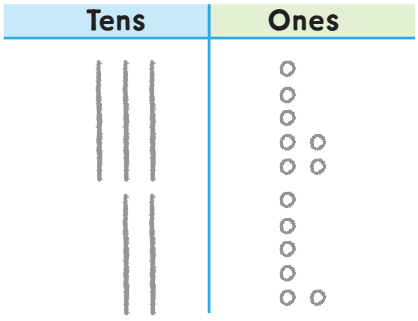
Model and Draw

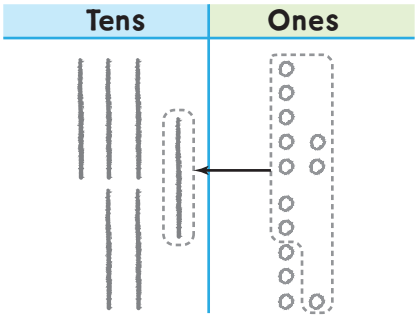
Trace over the quick pictures in the steps.

Step 1 Model 37 + 26. Are there 10 ones to regroup?



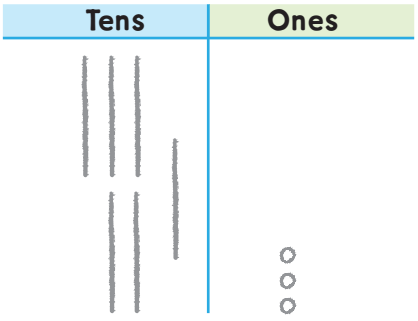
	Tens	Ones
	□	
	3	7
+	2	6

Step 2 Write the regrouped ten. Write how many ones are in the ones place now.



	Tens	Ones
	1	
	3	7
+	2	6
		3

Step 3 How many tens are there? Write how many tens are in the tens place.



	Tens	Ones
	1	
	3	7
+	2	6
	6	3

Share and Show

MATH BOARD

Draw quick pictures to help you solve. Write the sum.

1.

	Tens	Ones
	□	
	2	6
+	3	2

Tens	Ones

2.

	Tens	Ones
	□	
	5	8
+	2	4

Tens	Ones

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Name _____

On Your Own

Draw quick pictures to help you solve. Write the sum.

3.

	Tens	Ones
	□	
	3	4
+		9

Tens	Ones

4.

	Tens	Ones
	□	
	2	7
+	2	4

Tens	Ones

5.

	Tens	Ones
	□	
	3	5
+	2	3

Tens	Ones

6.

	Tens	Ones
	□	
	5	9
+		6

Tens	Ones

7. THINK SMARTER Tim has 36 stickers. Margo has 44 stickers. How many more stickers would they need to have 100 stickers altogether?

_____ more stickers

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Problem Solving • Applications (Real World) WRITE Math

Write or draw to explain.

8. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Chris and Bianca got 80 points in all in the spelling contest. Each child got more than 20 points. How many points could each child have gotten?

Chris: _____ points

Bianca: _____ points

Personal Math Trainer

9. THINK SMARTER + Don built a tower with 24 blocks. He built another tower with 18 blocks. How many blocks did Don use for both towers? Draw quick pictures to solve. Write the sum.

Tens	Ones

_____ blocks

Did you regroup to find the answer? Explain.

_____

_____

_____

TAKE HOME ACTIVITY • Write two 2-digit numbers and ask your child if he or she would regroup to find the sum.

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Name _____

2-Digit Addition

Essential Question How do you record the steps when adding 2-digit numbers?

Number and Operations in Base Ten—2.NBT.5, 2.NBT.9

MATHEMATICAL PRACTICES
MP.3, MP.6, MP.8

Listen and Draw

Draw quick pictures to model each problem.

Tens	Ones

Tens	Ones

Math Talk **Mathematical Practices**

Explain when you need to regroup ones.

FOR THE TEACHER • Read the following problem and have children draw quick pictures to solve. Jason scored 35 points in one game and 47 points in another game. How many points did Jason score? Repeat the activity with this problem. Patty scored 18 points. Then she scored 21 points. How many points did she score in all?

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Model and Draw

Add 59 and 24.

Step 1 Add the ones.

$9 + 4 = 13$

Tens	Ones
5	9
+ 2	4

Step 2 Regroup.
13 ones is the same as 1 ten 3 ones.

Tens	Ones
1	
5	9
+ 2	4
	3

Step 3 Add the tens.

$1 + 5 + 2 = 8$

Tens	Ones
1	
5	9
+ 2	4
8	3

Share and Show

MATH BOARD

Regroup if you need to. Write the sum.

1.

Tens	Ones
4	2
+ 2	9

2.

Tens	Ones
3	1
+ 1	4

3.

Tens	Ones
2	7
+ 4	5

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Name _____

On Your Own

Regroup if you need to. Write the sum.

4.

Tens	Ones
□	
4	8
+	7

5.

Tens	Ones
□	
3	5
+ 4	2

6.

Tens	Ones
□	
7	3
+ 2	0

7.

3	3
+ 2	7

8.

5	2
+	5

9.

3	6
+ 5	8

10.

6	4
+ 2	5

11.

3	5
+ 3	8

12.

3	8
+ 5	2

Solve. Write or draw to explain.

13. THINK SMARTER Jin has 31 books about cats and 19 books about dogs. He gives 5 books to his sister. How many books does Jin have now?

_____ books

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Problem Solving • Applications (Real World) WRITE Math

14. GO DEEPER Abby used a different way to add. Find the sum, using Abby's way.

$$\begin{array}{r} 35 \\ +\ 48 \\ \hline 13 \\ +\ 70 \\ \hline 83 \end{array}$$

$$\begin{array}{r} 57 \\ +\ 29 \\ \hline \\ \hline \end{array}$$

15. MATHEMATICAL PRACTICE 3 **Verify the Reasoning of Others**

Describe Abby's way of adding 2-digit numbers.

_____

_____

_____

16. THINK SMARTER Melissa saw 14 sea lions and 29 seals. How many animals did she see? Write a number sentence to find the total number of animals that she saw.

_____

Explain how the number sentence shows the problem.

_____

_____

TAKE HOME ACTIVITY • Ask your child to show you two ways to add 45 and 38.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Practice 2-Digit Addition

Essential Question How do you record the steps when adding 2-digit numbers?

Number and Operations in Base Ten—2.NBT.5 *Also 2.NBT.7*

MATHEMATICAL PRACTICES
MP.1, MP.3, MP.7

Listen and Draw

Real World

Choose one way to solve the problem.
Draw or write to show what you did.

Math Talk **Mathematical Practices**

Explain why you chose your way of solving the problem.

FOR THE TEACHER • Read the following problem. There were 45 boys and 63 girls who ran in the race. How many children ran in the race?

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Model and Draw

Mrs. Meyers sold 47 snacks before the game. Then she sold 85 snacks during the game. How many snacks did she sell?

Step 1 Add the ones.

$7 + 5 = 12$

Regroup 12 ones as 1 ten 2 ones.

$$\begin{array}{r} {\scriptstyle 1} \\ 47 \\ +\ 85 \\ \hline 2 \end{array}$$

Step 2 Add the tens.

$1 + 4 + 8 = 13$

$$\begin{array}{r} {\scriptstyle 1} \\ 47 \\ +\ 85 \\ \hline 2 \end{array}$$

Step 3 13 tens can be regrouped as 1 hundred 3 tens. Write the hundreds digit and the tens digit in the sum.

$$\begin{array}{r} {\scriptstyle 1} \\ 47 \\ +\ 85 \\ \hline 132 \end{array}$$

Share and Show

MATH BOARD

Write the sum.

1.

$$\begin{array}{r} 38 \\ +\ 94 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 45 \\ +\ 52 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 83 \\ +\ 76 \\ \hline \end{array}$$

4.

$$\begin{array}{r} 56 \\ +\ 35 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 63 \\ +\ 51 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 74 \\ +\ 49 \\ \hline \end{array}$$

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Name _____

On Your Own

Write the sum.

7.

$$\begin{array}{r} 52 \\ +\ 37 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 88 \\ +\ 21 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 74 \\ +\ 67 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 93 \\ +\ 54 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 92 \\ +\ 78 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 56 \\ +\ 16 \\ \hline \end{array}$$

13.

$$\begin{array}{r} 31 \\ +\ 45 \\ \hline \end{array}$$

14.

$$\begin{array}{r} 43 \\ +\ 72 \\ \hline \end{array}$$

15. THINK SMARTER Without finding the sums, circle the pairs of addends for which the sum will be greater than 100.

Explain how you decided which pairs to circle.

73 18	54 71
47 62	36 59

_____

_____

_____

_____

TAKE HOME ACTIVITY • Tell your child two 2-digit numbers. Have him or her write the numbers and find the sum.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Break apart ones to make a ten.
Then add and write the sum. (2.NBT.6)

1. $37 + 8 =$ _____

2. $55 + 7 =$ _____

Break apart the addends to find the sum. (2.NBT.6)

3. $27 \longrightarrow$ _____ + _____

$+36 \longrightarrow$ _____ + _____

_____ + _____ = _____

Write the sum. (2.NBT.5)

4.
$$\begin{array}{r} 28 \\ +\ 57 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 67 \\ +\ 31 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 71 \\ +\ 19 \\ \hline \end{array}$$

7. THINK SMARTER Julia collected 25 cans to recycle. Dan collected 14 cans. How many cans did they collect? (2.NBT.5)

_____ cans

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Name _____

Rewrite 2-Digit Addition

Essential Question What are two different ways to write addition problems?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Write the numbers for each addition problem.

+ _____	+ _____
+ _____	+ _____

Math Talk **Mathematical Practices**

Explain why it is important to line up the digits of these addends in columns.

FOR THE TEACHER • Read the following problem and have children write the addends in vertical format. Juan's family drove 32 miles to his grandmother's house. Then they drove 14 miles to his aunt's house. How many miles did they drive? Repeat for three more problems.

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Model and Draw

Add. 28 + 45 = ?

Step 1 For 28, write the tens digit in the tens column.

Write the ones digit in the ones column.

Repeat for 45.

$$\begin{array}{r} 2\ 8 \\ +\ 4\ 5 \\ \hline \end{array}$$

Step 2 Add the ones.

Regroup if you need to.

Add the tens.

$$\begin{array}{r} 2\ 8 \\ +\ 4\ 5 \\ \hline \end{array}$$

Share and Show

MATH BOARD

Rewrite the addition problem. Then add.

1. 25 + 8

+ _____

2. 37 + 10

+ _____

3. 25 + 45

+ _____

4. 38 + 29

+ _____

5. 20 + 45

+ _____

6. 63 + 9

+ _____

7. 15 + 36

+ _____

8. 74 + 18

+ _____

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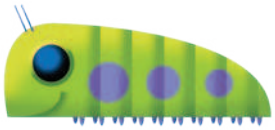
Name _____

On Your Own



Rewrite the addition problem. Then add.

9. 27 + 54

+ _____

10. 34 + 30

+ _____

11. 26 + 17

+ _____

12. 48 + 38

+ _____

13. 50 + 32

+ _____

14. 61 + 38

+ _____

15. 37 + 43

+ _____

16. 79 + 17

+ _____

17. 45 + 40

+ _____

18. 21 + 52

+ _____

19. 17 + 76

+ _____

20. 68 + 29

+ _____

21. THINK SMARTER For which of the problems above could you find the sum without rewriting it? Explain.

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

Use the table. Write or draw to show how you solved the problem.

Points Scored This Season	
Player	**Number of Points**
Anna	26
Lou	37
Becky	23
Kevin	19

22. MATHEMATICAL PRACTICE 1 **Analyze Relationships**
Which two players scored 56 points in all? Add to check your answer.

_____ and _____

23. THINK SMARTER Shawn says he can find the sum of 20 + 63 without rewriting it. Explain how to find the sum using mental math.

TAKE HOME ACTIVITY • Have your child write and solve another problem, using the table above.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Addition

Essential Question How can drawing a diagram help when solving addition problems?

Operations and Algebraic Thinking—2.OA.1 *Also 2.NBT.5*

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Kendra had 13 crayons. Her dad gave her some more crayons. Then she had 19 crayons. How many crayons did Kendra's dad give her?

Unlock the Problem

What do I need to find?

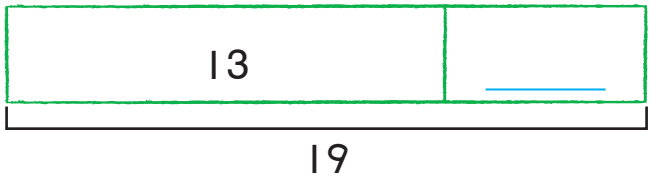
how many crayons

Kendra's dad gave her

What information do I need to use?

She had _____ crayons. After he gave her some more crayons, she had _____ crayons.

Show how to solve the problem.



There are 19 crayons in all.

13 + ☐ = 19

_____ crayons

HOME CONNECTION • Your child used a bar model and a number sentence to represent the problem. These help show what the missing amount is in order to solve the problem.

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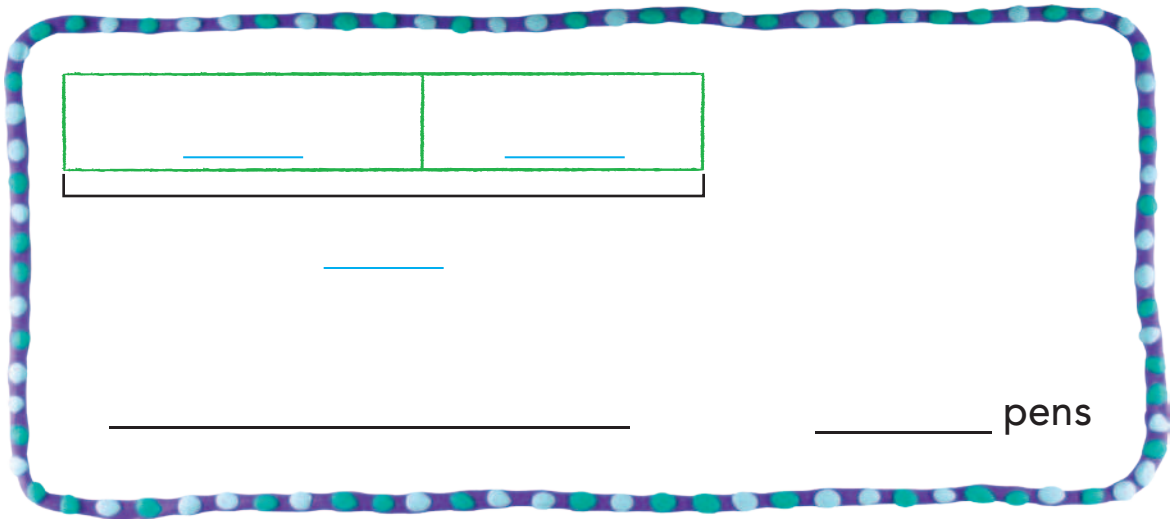
Try Another Problem

- What do I need to find?
- What information do I need to use?

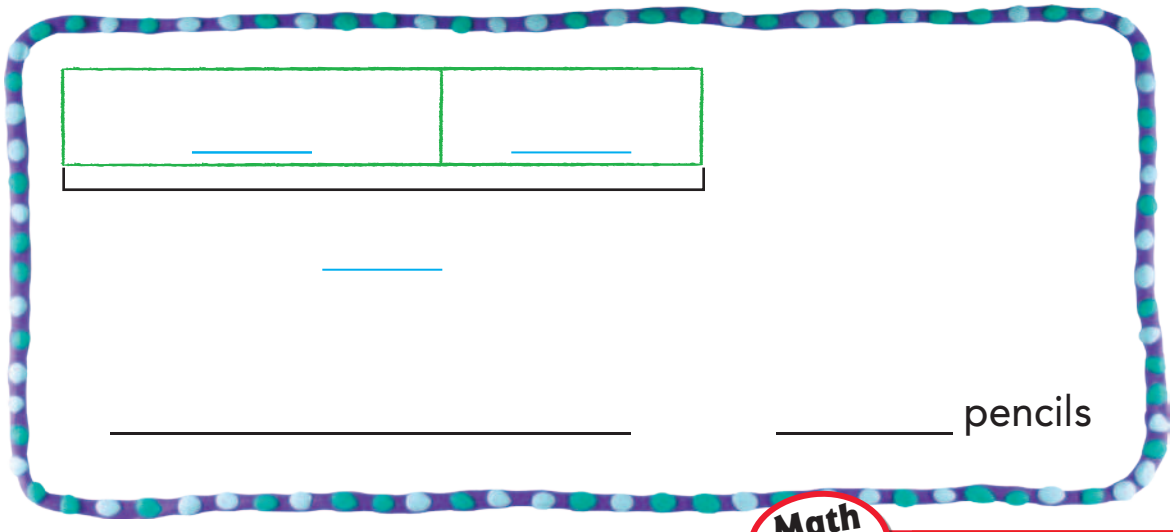
Label the bar model. Write a number sentence with a ☐ for the missing number. Solve.

1. Mr. Kane has 24 red pens. He buys 19 blue pens. How many pens does he have now?



_____ _____ pens

2. Hannah has 10 pencils. Jim and Hannah have 17 pencils altogether. How many pencils does Jim have?



_____ _____ pencils

Math Talk **Mathematical Practices**

Explain how you know if an amount is a part or the whole in a problem.

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Name _____

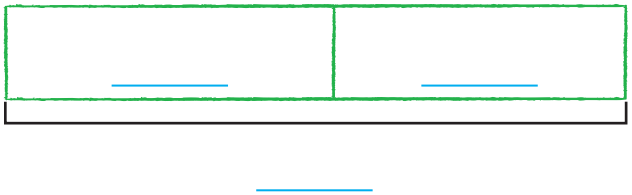
Share and Show

MATH BOARD

Label the bar model. Write a number sentence with a ▢ for the missing number. Solve.

3. Aimee and Matthew catch 17 crickets in all. Aimee catches 9 crickets. How many crickets does Matthew catch?

_____ crickets

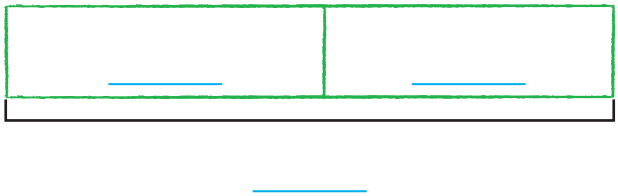


_____

_____

4. Percy counts 16 grasshoppers at the park. He counts 15 grasshoppers at home. How many grasshoppers does Percy count?

_____ grasshoppers



_____

_____

5. THINK SMARTER There are three groups of owls. There are 17 owls in each of the first two groups. There are 53 owls in all. How many owls are in the third group?

_____ owls

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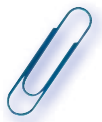
On Your Own

WRITE Math

Write or draw to explain.

6. There are 37 paper clips in the box and 24 paper clips on the table. How many paper clips in all are there?



_____ paper clips

7. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Jeff has 19 postcards and 2 pens. He buys 20 more postcards. How many postcards does he have now?

_____ postcards

8. GO DEEPER Alicia drew 15 flowers. Marie drew 4 more flowers than Alicia drew. How many flowers did they draw?

_____ flowers

9. THINK SMARTER There are 23 books in a box. There are 29 books on a shelf. How many books are there?

_____ books

TAKE HOME ACTIVITY • Ask your child to explain how to solve one of the problems above.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Write Equations to Represent Addition

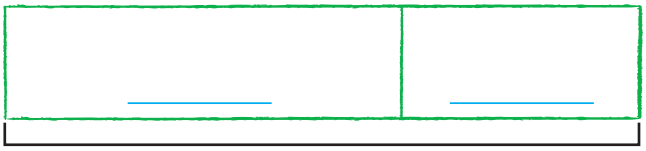
Essential Question How do you write a number sentence to represent a problem?

Operations and Algebraic Thinking—2.OA.1 *Also 2.NBT.5*

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Listen and Draw

Draw to show how you found the answer.



_____

_____

Math Talk **Mathematical Practices**

Explain how you found the number of children on the bus.

FOR THE TEACHER • Read the following problem and have children choose their own methods for solving. There are 15 children on the bus. Then 9 more children get on the bus. How many children are on the bus now?

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Model and Draw

You can write a number sentence to show a problem.

Sandy has 16 pencils. Nancy has 13 pencils. How many pencils do the two girls have?

16 + 13 = ☐

THINK:
16 pencils
+ 13 pencils
29 pencils

The two girls have _____ pencils.

Share and Show

MATH BOARD

Write a number sentence for the problem. Use a ☐ for the missing number. Then solve.

1. Carl sees 25 melons at the store. 15 are small and the rest are large. How many melons are large?

_____ _____ melons

2. 83 people went to a movie on Thursday. 53 of them were children and the rest were adults. How many adults were at the movie?

_____ _____ adults

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Name _____

On Your Own

Write a number sentence for the problem. Use a ☐ for the missing number. Then solve.

3. Jake had some stamps. Then he bought 20 more stamps. Now he has 56 stamps. How many stamps did Jake have to start?

_____ _____ stamps

4. THINK SMARTER Braden's class went to the park. They saw 26 oak trees and 14 maple trees. They also saw 13 cardinals and 35 blue jays. Compare the number of trees and the number of birds that the class saw.

_____ ◯ _____

5. MATHEMATICAL PRACTICE 6 **Explain** Amy needs about 70 paper clips. Without adding, circle 2 boxes that would be close to the amount that she needs.

70 clips	81 clips	54 clips
19 clips	35 clips	32 clips

Explain how you made your choices.

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

6. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Mr. Walton baked 24 breads last week. He baked 28 breads this week. How many breads did he bake in the two weeks? _____ breads

7. THINK SMARTER Denise saw these bags of oranges at the store.

Denise bought 26 oranges. Which two bags of oranges did she buy?

Draw or write to show how you solved the problem.

Explain how you found the numbers that have a sum of 26.

TAKE HOME ACTIVITY • Have your child explain how he or she writes a number sentence to stand for a problem.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Find Sums for 3 Addends

Essential Question What are some ways to add 3 numbers?

Number and Operations in Base Ten—2.NBT.6

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Draw to show each problem.

Math Talk **Mathematical Practices**

Which numbers did you add first in the first problem? **Explain** why.

FOR THE TEACHER • Read the following problem and have children draw to show it. Mr. Kim bought 5 blue balloons, 4 red balloons, and 5 yellow balloons. How many balloons did Mr. Kim buy? Repeat for another problem.

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Model and Draw

There are different ways to add three numbers.

How can you add 23, 41, and 17?

Think of different ways to choose digits in the ones **column** to add first.

You can make a ten first. Then add the other ones digit. Then add the tens.

$$\begin{array}{r} 2\,3 \\ 4\,1 \\ +\ 1\,7 \\ \hline \end{array}$$

$3 + 7 = 10$
$10 + 1 = 11$

Add from top to bottom. First add the top two digits in the ones column, then add the next digit. Then add the tens.

$$\begin{array}{r} 2\,3 \\ 4\,1 \\ +\ 1\,7 \\ \hline \end{array}$$

$3 + 1 = 4$
$4 + 7 = 11$

Share and Show

MATH BOARD

Add.

1. $\begin{array}{r} 33 \\ 34 \\ +\ 32 \\ \hline \end{array}$

2. $\begin{array}{r} 47 \\ 21 \\ +\ 7 \\ \hline \end{array}$

3. $\begin{array}{r} 65 \\ 13 \\ +\ 15 \\ \hline \end{array}$

4. $\begin{array}{r} 58 \\ 27 \\ +\ 22 \\ \hline \end{array}$

5. $\begin{array}{r} 12 \\ 22 \\ +\ 36 \\ \hline \end{array}$

6. $\begin{array}{r} 10 \\ 42 \\ +\ 36 \\ \hline \end{array}$

7. $\begin{array}{r} 31 \\ 21 \\ +\ 16 \\ \hline \end{array}$

8. $\begin{array}{r} 30 \\ 29 \\ +\ 48 \\ \hline \end{array}$

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Name _____

On Your Own

Add.

9. 22 27 +18	10. 26 31 +19	11. 24 11 +53	12. 33 43 + 4
13. 40 17 +32	14. 25 25 +25	15. 19 65 +24	16. 73 4 + 16
17. 35 24 +58	18. 32 18 + 28	19. 42 31 +12	20. 70 18 +17

21. THINK SMARTER Sophia had 44 marbles. She bought 24 more marbles. Then John gave her 35 marbles. How many marbles does Sophia have now?

_____ marbles

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

22. MATHEMATICAL PRACTICE 1 **Evaluate** Mrs. Shaw has 23 red notebooks, 15 blue notebooks, and 27 green notebooks. How many notebooks does she have?

_____ notebooks

23. MATHEMATICAL PRACTICE 4 **Model Mathematics**
Write a story problem that could be solved using this number sentence.

$12 + 28 + \square = 53$

24. THINK SMARTER Mr. Samson gave his students 31 yellow pencils, 27 red pencils, and 25 blue pencils. How many pencils did he give to his students?

_____ pencils

TAKE HOME ACTIVITY • Ask your child to show you two ways to add 17, 13, and 24.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Find Sums for 4 Addends

Essential Question What are some ways to add 4 numbers?

Number and Operations in Base Ten—2.NBT.6

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Show how you solved each problem.

Math Talk **Mathematical Practices**

Describe how you found the answer to the first problem.

FOR THE TEACHER • Read this problem and have children choose a way to solve it. Shelly counts 16 ants in her ant farm. Pedro counts 22 ants in his farm. Tara counts 14 ants in her farm. How many ants do the 3 children count? Repeat for another problem.

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Model and Draw

You can add digits in a column in more than one way. Add the ones first. Then add the tens.

Find a sum that you know. Then add to it.

$$\begin{array}{r} 31 \\ 14 \\ 27 \\ +\ 24 \\ \hline \end{array} \quad 8$$

THINK: 8 + 1 = 9, then add on 7 more. The sum of the ones is 16 ones.

Add pairs of digits first. Then add these sums.

$$\begin{array}{r} 31 \\ 14 \\ 27 \\ +\ 24 \\ \hline \end{array} \quad \begin{array}{l} 5 \\ \\ 11 \\ \\ \end{array}$$

THINK: 5 + 11 = 16, so there are 16 ones in all.

Share and Show

MATH BOARD

Add.

1. $\begin{array}{r} 23 \\ 11 \\ 22 \\ +31 \\ \hline \end{array}$

2. $\begin{array}{r} 30 \\ 15 \\ 3 \\ +\ 25 \\ \hline \end{array}$

3. $\begin{array}{r} 13 \\ 26 \\ 54 \\ +\ 12 \\ \hline \end{array}$

4. $\begin{array}{r} 27 \\ 2 \\ 23 \\ +\ 13 \\ \hline \end{array}$

5. $\begin{array}{r} 45 \\ 14 \\ 35 \\ +\ 51 \\ \hline \end{array}$

6. $\begin{array}{r} 32 \\ 21 \\ 15 \\ +\ 30 \\ \hline \end{array}$

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Name _____

On Your Own

Add.

7.	36 12 21 + 26	8.	14 23 20 + 11	9.	22 13 15 + 27
10.	45 12 41 + 22	11.	59 31 51 + 73	12.	34 10 31 + 22
13.	14 40 51 + 32	14.	21 12 32 + 24	15.	16 61 25 + 44

Solve. Write or draw to explain.

16. THINK SMARTER Laney added four numbers which have a total of 128. She spilled some juice over one number. What is that number?

$22 + 43 +$ ____ $+ 30 = 128$

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Problem Solving • Applications (Real World)

WRITE Math

Use the table.
Write or draw to show how you solved the problems.

Shells Collected at the Beach	
Child	Number of Shells
Katie	34
Paul	15
Noah	26
Laura	21

17. MATHEMATICAL PRACTICE 1 **Evaluate** How many shells did the four children collect at the beach?

_____ shells

18. GO DEEPER Which two children collected more shells at the beach, Katie and Paul, or Noah and Laura?

_____

19. THINK SMARTER There were 24 red beads, 31 blue beads, and 8 green beads in a jar. Then Emma put 16 beads into the jar. Write a number sentence to show the number of beads in the jar.

_____

TAKE HOME ACTIVITY • Have your child explain what he or she learned in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 4 Review/Test

1. Beth baked 24 carrot muffins. She baked 18 apple muffins. How many muffins did Beth bake?

Label the bar model. Write a number sentence with a ☐ for the missing number. Solve.

_____

_____ muffins

_____

2. Carlos has 23 red keys, 36 blue keys, and 44 green keys. How many keys does he have?

Carlos has

67
80
103

keys.

3. Mike sees 17 blue cars and 25 green cars at the toy store. How many cars does he see?

○ $\begin{array}{r} 17 \\ +\ 25 \\ \hline \end{array}$ ○ $\begin{array}{r} 25 \\ -\ 17 \\ \hline \end{array}$ ○ $\begin{array}{r} 25 \\ +\ 17 \\ \hline \end{array}$ ○ $\begin{array}{r} 17 \\ +\ 17 \\ \hline \end{array}$

Mike sees _____ cars.

Describe how you solved the problem.

_____

_____

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4. Jerry has 53 pencils in one drawer. He has 27 pencils in another drawer.

Draw a picture or write to explain how to find the number of pencils in both drawers.

Jerry has _____ pencils.

5. Lauren sees 14 birds. Her friend sees 7 birds. How many birds do Lauren and her friend see? Draw quick pictures to solve. Write the sum.

Tens	Ones

_____ birds

Did you regroup to find the answer? Explain.

_____

_____

6. Matt says he can find the sum of 45 + 50 without rewriting it. Explain how you can solve this problem using mental math.

_____

_____

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Name _____

7. Ling sees the three signs at the theater.

Section A	Section B	Section C
35 seats	43 seats	17 seats

Which two sections have 78 seats?

Explain how you made your choices.

_____

_____

8. Leah put 21 white marbles, 31 black marbles, and 7 blue marbles in a bag. Then her sister added 19 yellow marbles.

Write a number sentence to show the number of marbles in the bag.

_____

9. Nicole made a necklace. She used 13 red beads and 26 blue beads. Show how you can break apart the addends to find how many beads Nicole used.

13 → _____ + _____

+ 26 → _____ + _____

_____ + _____ = _____

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10. Without finding the sums, does the pair of addends have a sum greater than 100? Choose Yes or No.

$51 + 92$	○ Yes	○ No
$42 + 27$	○ Yes	○ No
$82 + 33$	○ Yes	○ No
$62 + 14$	○ Yes	○ No

Explain how you decided which pairs have a sum greater than 100.

11. Leslie finds 24 paper clips in her desk. She finds 8 more paper clips in her pencil box. Choose all the ways you can use to find how many paper clips Leslie has in all.

- ○ $24 + 8$
- ○ $24 - 8$
- ○ $24 + 6 + 2$

12. Mr. O'Brien visited a lighthouse. He climbed 26 stairs. Then he climbed 64 more stairs to the top. How many stairs did he climb at the lighthouse?

_____ stairs

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Chapter 5

2-Digit Subtraction

Curious about Math

There are hundreds of different kinds of dragonflies. If 52 dragonflies are in a garden and 10 fly away, how many dragonflies are left? How many are left if 10 more fly away?

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Name _____

Show What You Know

Subtraction Patterns

Subtract 2. Complete each subtraction sentence.

1. $7 - \underline{2} = \underline{5}$
2. $6 - \_\_\_\_ = \_\_\_\_$
3. $5 - \_\_\_\_ = \_\_\_\_$
4. $4 - \_\_\_\_ = \_\_\_\_$
5. $3 - \_\_\_\_ = \_\_\_\_$
6. $2 - \_\_\_\_ = \_\_\_\_$

Subtraction Facts

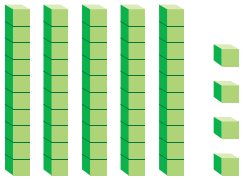
Write the difference.

7. $\begin{array}{r} 8 \\ -\ 5 \\ \hline \end{array}$
8. $\begin{array}{r} 14 \\ -\ 6 \\ \hline \end{array}$
9. $\begin{array}{r} 9 \\ -\ 6 \\ \hline \end{array}$
10. $\begin{array}{r} 16 \\ -\ 7 \\ \hline \end{array}$
11. $\begin{array}{r} 12 \\ -\ 6 \\ \hline \end{array}$
12. $\begin{array}{r} 10 \\ -\ 8 \\ \hline \end{array}$

Tens and Ones

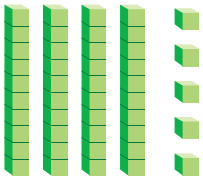
Write how many tens and ones are in each model.

13. 54



_____ tens _____ ones

14. 45



_____ tens _____ ones

This page checks understanding of important skills needed for success in Chapter 5.

Personal Math Trainer
Online Assessment and Intervention

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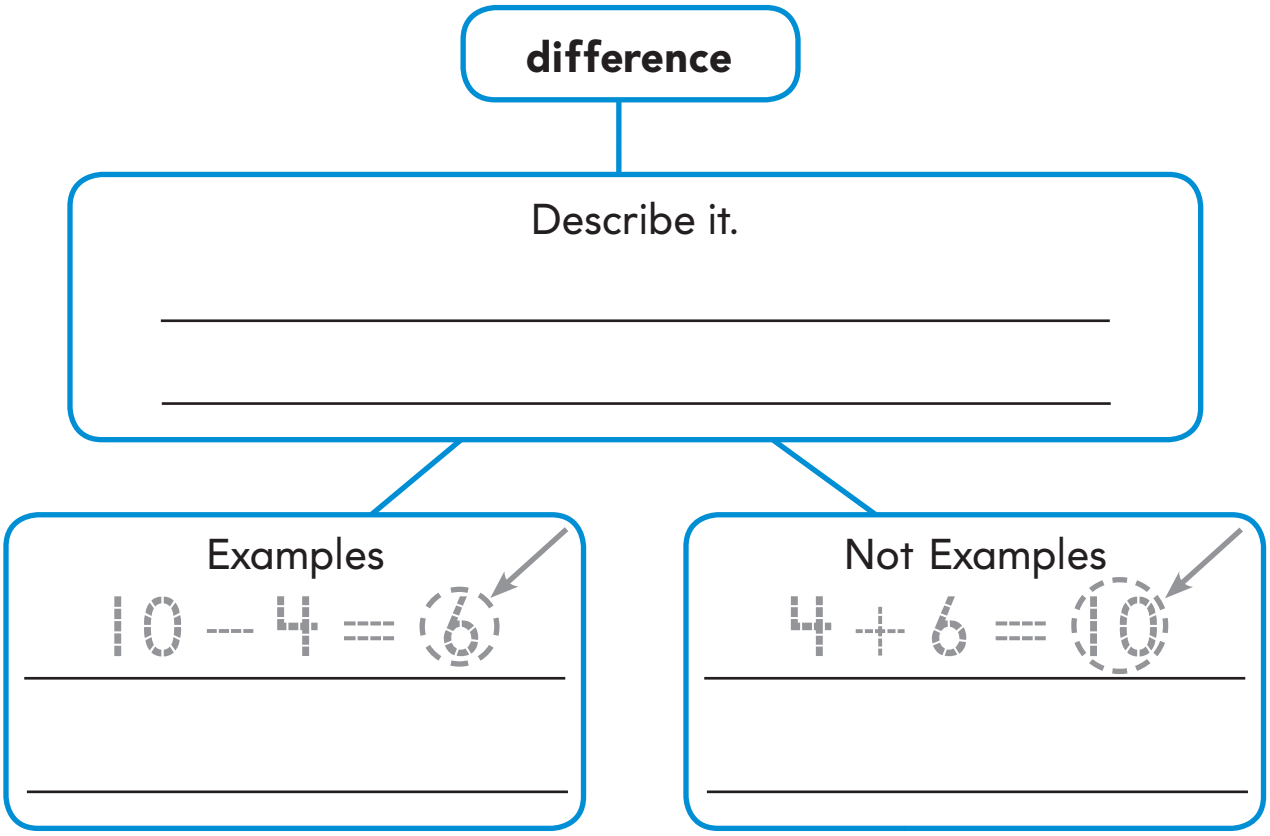
Name _____

Vocabulary Builder

Review Words
difference
regroup
tens
ones
digit

Visualize It

Fill in the boxes of the graphic organizer.



Understand Vocabulary

Draw a line to complete the sentence.

1. A **digit** can be •	• as 2 **tens**.
2. You can **regroup** •	• 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9.
3. 20 **ones** are the same •	• to trade 10 ones for 1 ten.

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Game Subtraction Search

Materials

- 3 sets of number cards 4–9
- 18

Play with a partner.

1. Shuffle all the cards. Place them face down in one stack.
2. Take one card. Find a square with a subtraction problem with this number as the difference. Your partner checks your answer.
3. If you are correct, place a on that square. If there is no match, skip your turn.
4. Take turns. The first player to have on all the squares wins.

Player 1			Player 2		
12 – 5	9 – 2	10 – 5	8 – 3	15 – 7	11 – 6
16 – 7	13 – 7	17 – 9	17 – 8	9 – 3	16 – 8
7 – 3	11 – 5	18 – 9	13 – 9	6 – 2	14 – 7

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Name _____

Algebra • Break Apart Ones to Subtract

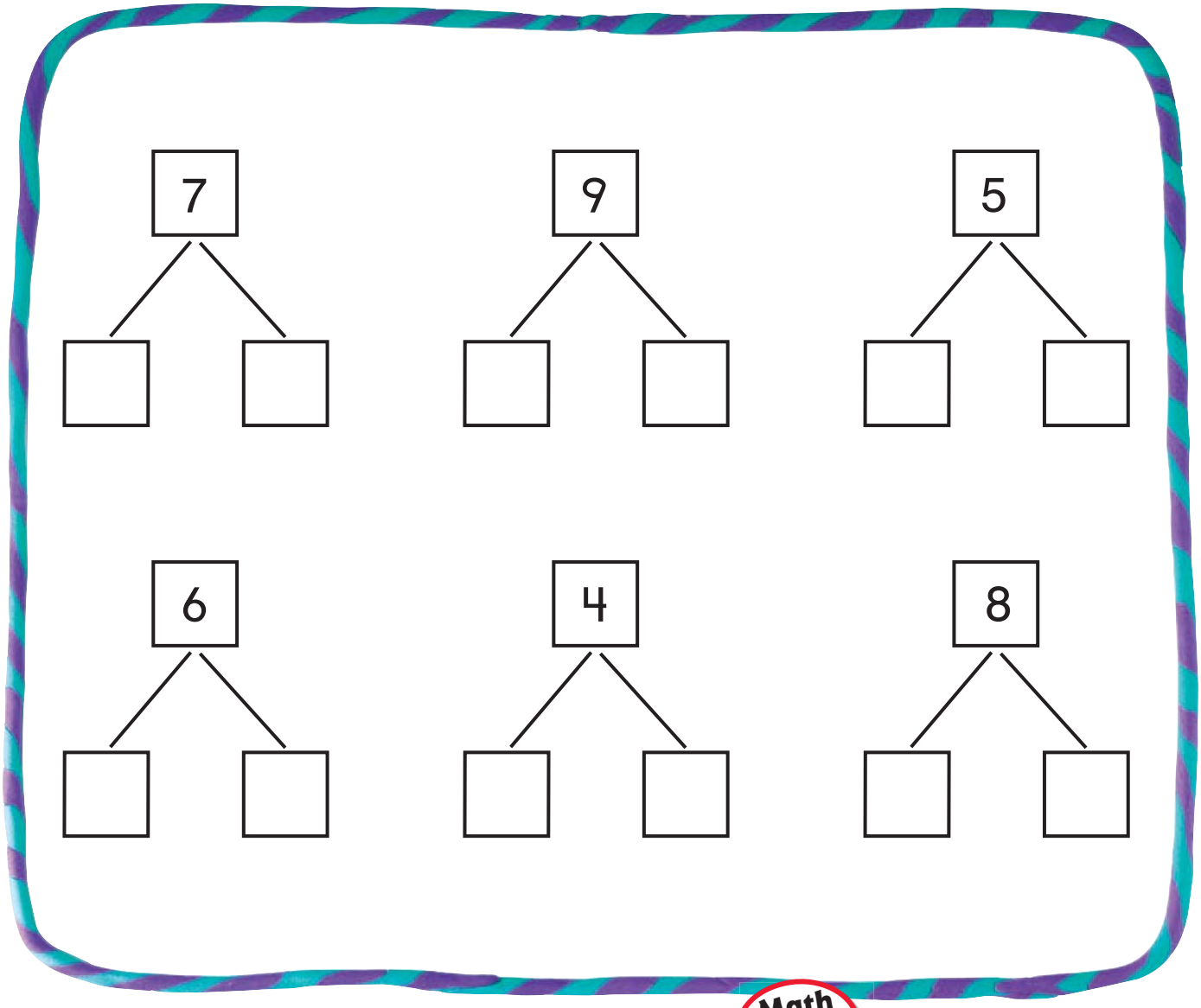
Essential Question How does breaking apart a number make subtracting easier?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.5, MP.8

Listen and Draw

Write two addends for each sum.



Math Talk **Mathematical Practices**

Describe how you chose addends for each sum.

FOR THE TEACHER • After children have recorded addends for each sum, have a class discussion about the different facts that children represented on their papers.

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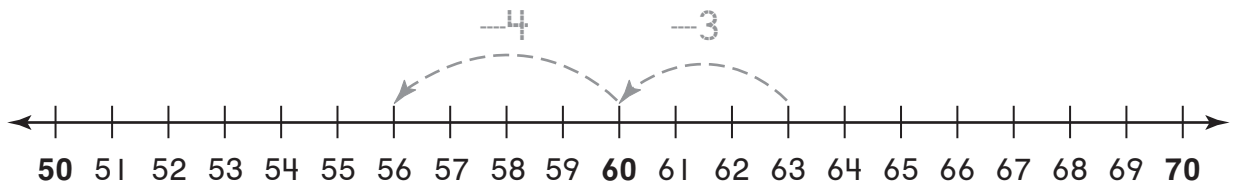
Model and Draw

Break apart ones. Subtract in two steps.

$63 - 7 = \square$

3 4

Start at 63. Subtract 3 to get to 60. Then subtract 4 more.

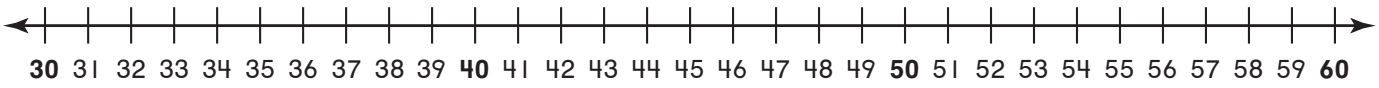


So, $63 - 7 =$ _____.

Share and Show

MATH BOARD

Break apart ones to subtract. Write the difference.



1. $55 - 8 =$ _____

5 3

2. $42 - 5 =$ _____

2 3

3. $41 - 9 =$ _____

4. $53 - 6 =$ _____

5. $44 - 7 =$ _____

6. $52 - 8 =$ _____

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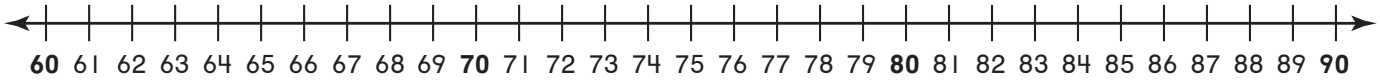
Name _____

On Your Own

Break apart ones to subtract. Write the difference.



7. $75 - 7 =$ _____

8. $86 - 8 =$ _____

9. $82 - 5 =$ _____

10. $83 - 7 =$ _____

11. $72 - 7 =$ _____

12. $76 - 9 =$ _____

13. $85 - 8 =$ _____

14. $71 - 6 =$ _____

15. THINK SMARTER Cheryl brought 27 bagels for the bake sale. Mike brought 24 bagels. They sold all but 9 of them. How many bagels did they sell?

_____ bagels

16. MATHEMATICAL PRACTICE 1 **Analyze** Lexi has 8 fewer crayons than Ken. Ken has 45 crayons. How many crayons does Lexi have?

_____ crayons

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Problem Solving • Applications (Real World) WRITE Math

Write or draw to explain.

17. Cheryl built a toy train with 27 train cars. Then she added 18 more train cars. How many train cars are on the toy train now?

_____ train cars

18. MATHEMATICAL PRACTICE 1 **Analyze**

Samuel had 46 marbles. He gave some marbles to a friend and has 9 marbles left. How many marbles did Samuel give to his friend?

_____ marbles

19. THINK SMARTER Matthew had 73 blocks. He gave 8 blocks to his sister. How many blocks does Matthew have now?

Draw or write to show how to solve the problem.

Matthew has _____ blocks now.

TAKE HOME ACTIVITY • Ask your child to describe how to find 34 − 6.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Break Apart Numbers to Subtract

Essential Question How does breaking apart a number make subtracting easier?

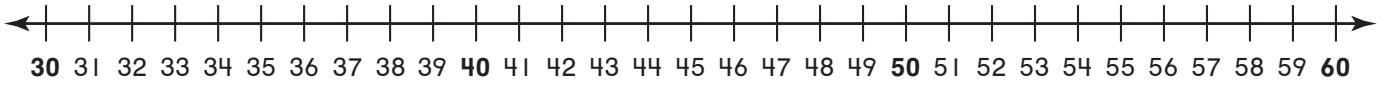
Number and Operations in Base Ten—2.NBT.5

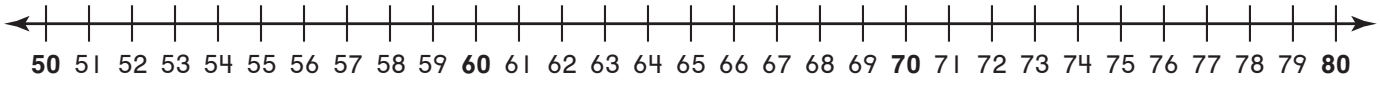
MATHEMATICAL PRACTICES
MP.5, MP.8

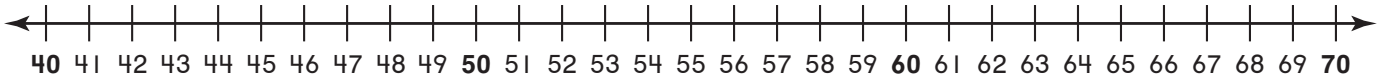
Listen and Draw

Real World

Draw jumps on the number line to show how to break apart the number to subtract.







FOR THE TEACHER • Read the following problem. Have children draw jumps on the number line to solve. Mrs. Hill had 45 paintbrushes. She gave 9 paintbrushes to students in her art class. How many paintbrushes does Mrs. Hill have now? Repeat the same problem situation for 72 − 7 and 53 − 6.

Math Talk **Mathematical Practices**

For one of the problems, **describe** what you did.

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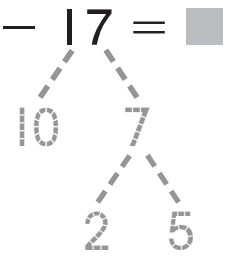
Model and Draw

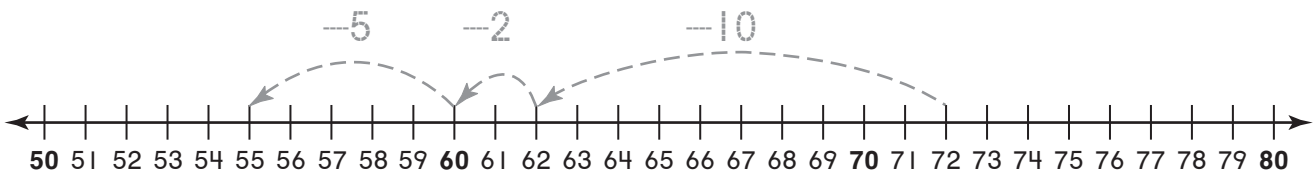
Break apart the number you are subtracting into tens and ones.

Subtract 10.
Next, subtract 2 to get to 60.
Then subtract 5 more.

$10 + 2 + 5 = 17$

$72 - 17 = \square$

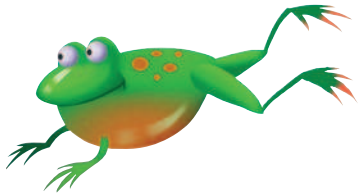




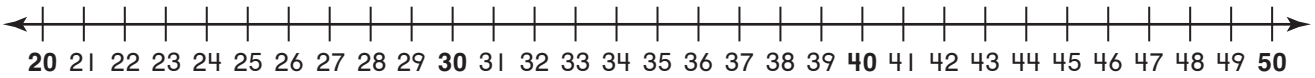
So, $72 - 17 =$ _____.

Share and Show

MATH BOARD



Break apart the number you are subtracting.
Write the difference.



1. $43 - 18 =$ _____

2. $45 - 14 =$ _____

3. $46 - 17 =$ _____

4. $44 - 16 =$ _____

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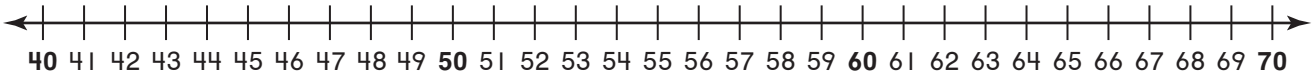
Name _____

On Your Own

Break apart the number you are subtracting. Write the difference.



5. $57 - 15 =$ _____

6. $63 - 17 =$ _____

7. $68 - 19 =$ _____

8. $61 - 18 =$ _____

9. THINK SMARTER Jane has 53 toys in a box. She takes some toys out. Now there are 36 toys in the box. How many toys did Jane take out of the box?

_____ toys

10. GO DEEPER Look at Tom's steps to solve a problem. Solve this problem in the same way.

$$42 - 15 = ?$$

Tom

$35 - 18 = ?$

$35 - 10 = 25$

$25 - 5 = 20$

$20 - 3 = 17$

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Problem Solving • Applications (Real World) WRITE Math

11. 38 people are in the library. Then 33 more people go into the library. How many people are in the library now?

_____ people

12. MATHEMATICAL PRACTICE 1 **Analyze** Alex has 24 toys in a chest. He takes some toys out of the chest. Then there are 16 toys in the chest. How many toys did he take out of the chest?

_____ toys

13. THINK SMARTER Gail has two piles of newspapers. There are 32 papers in the first pile. There are 19 papers in the second pile. How many more papers are in the first pile than in the second pile?

_____ more papers

Write or draw to explain how you solved the problem.

TAKE HOME ACTIVITY • Ask your child to write a subtraction story that uses 2-digit numbers.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Model Regrouping for Subtraction

Essential Question When do you regroup in subtraction?

Number and Operations in Base Ten—2.NBT.5

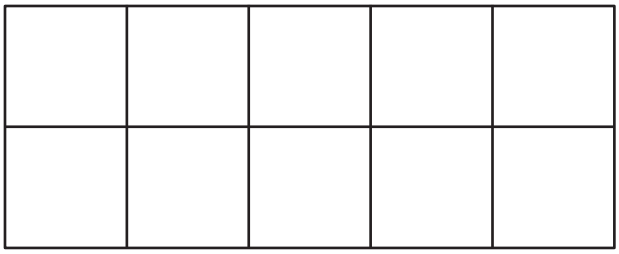
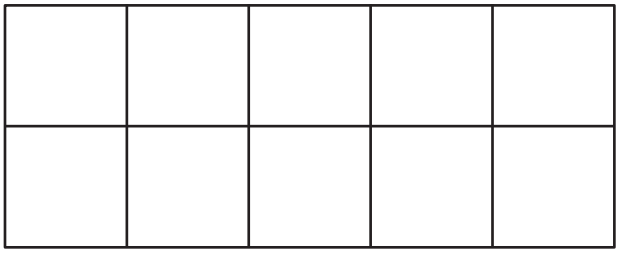
MATHEMATICAL PRACTICES
MP.5, MP.7

Listen and Draw

Real World

Hands On

Use to model the problem.
Draw quick pictures to show your model.

Tens	Ones
	
	

Math Talk Mathematical Practices

Describe why you traded a tens block for 10 ones blocks.

FOR THE TEACHER • Read the following problem. Michelle counted 21 butterflies in her garden. Then 7 butterflies flew away. How many butterflies were still in the garden?

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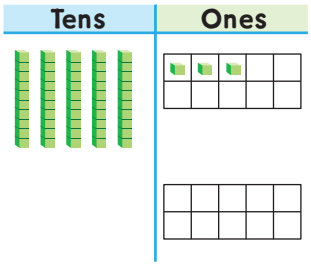
Model and Draw

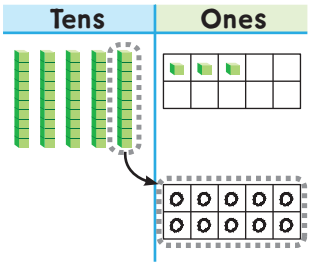
How do you subtract 26 from 53?

Step 1 Show 53. Are there enough ones to subtract 6?

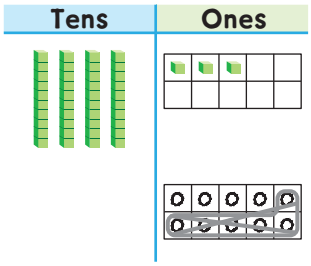


yes (no)

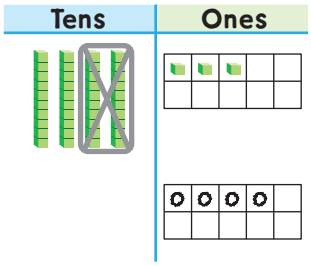
Step 2 If there are not enough ones, regroup 1 ten as 10 ones.



Step 3 Subtract 6 ones from 13 ones.



Step 4 Subtract the tens. Write the tens and ones. Write the difference.



____ tens ____ ones

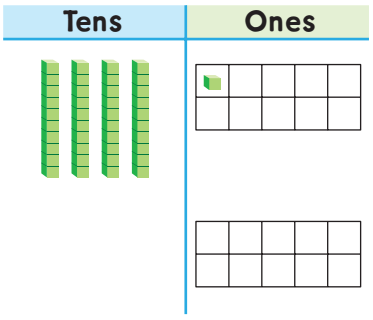
_____

Share and Show

MATH BOARD

Draw to show the regrouping. Write the difference two ways. Write the tens and ones. Write the number.

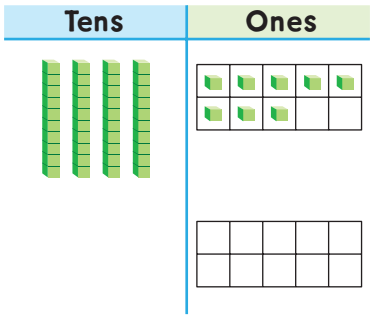
1. Subtract 13 from 41.



_____ tens _____ ones

_____

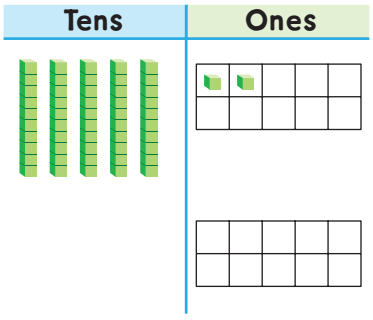
2. Subtract 9 from 48.



_____ tens _____ ones

_____

3. Subtract 28 from 52.



_____ tens _____ ones

_____

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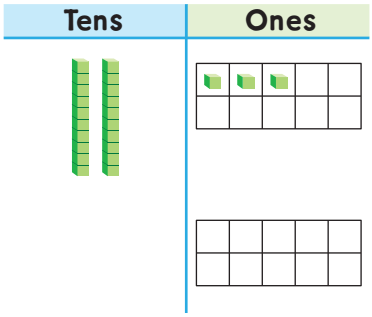
Name _____

On Your Own

Draw to show the regrouping. Write the difference two ways. Write the tens and ones. Write the number.

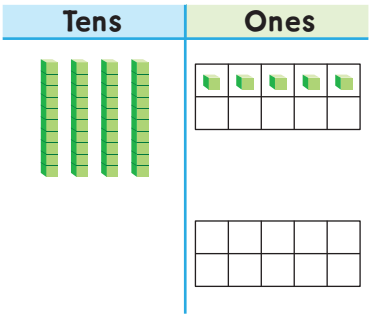
4. Subtract 8 from 23.



_____ ten _____ ones

_____

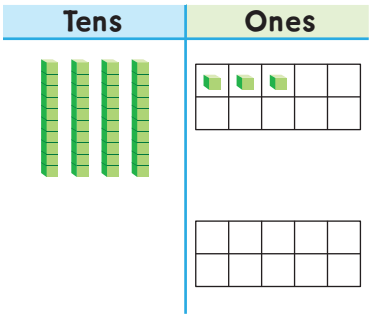
5. Subtract 36 from 45.



_____ tens _____ ones

_____

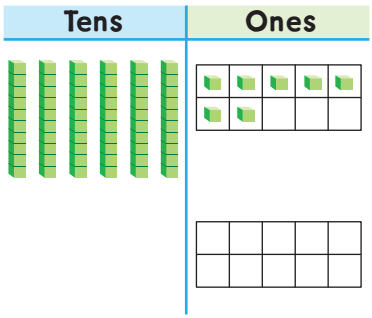
6. Subtract 6 from 43.



_____ tens _____ ones

_____

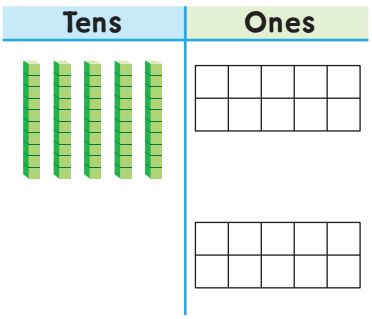
7. Subtract 39 from 67.



_____ tens _____ ones

_____

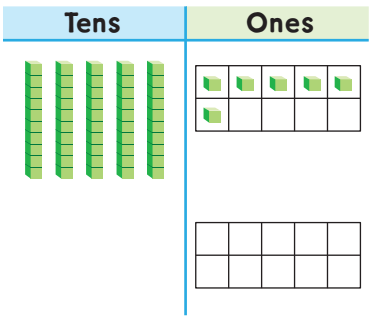
8. Subtract 21 from 50.



_____ tens _____ ones

_____

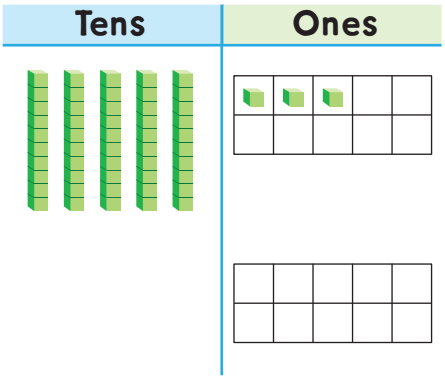
9. Subtract 29 from 56.



_____ tens _____ ones

_____

10. GO DEEPER Draw to find what number was subtracted from 53.



Subtract _____ from 53.

3 tens 4 ones

34

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Problem Solving • Applications (Real World) WRITE Math

Write or draw to explain.

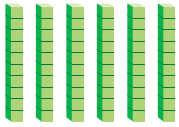
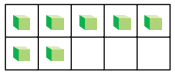
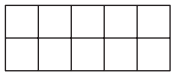
11. THINK SMARTER Billy has 18 fewer marbles than Sara. Sara has 34 marbles. How many marbles does Billy have?

_____ marbles

Personal Math Trainer

12. THINK SMARTER+ There are 67 toy animals in the store. Then the clerk sells 19 toy animals. How many toy animals are in the store now?

Draw to show how to find the answer.

Tens	Ones
	
	

_____ toy animals

Describe how you solved the problem.

_____

_____

_____

TAKE HOME ACTIVITY • Ask your child to write a subtraction story and then explain how to solve it.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Model and Record 2-Digit Subtraction

Essential Question How do you record 2-digit subtraction?

Number and Operations in Base Ten—2.NBT.5 *Also 2.NBT.9*

MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw

Real World

Hands On

Use to model the problem.
Draw quick pictures to show your model.

Tens	Ones

Math Talk **Mathematical Practices**

Did you trade blocks in your model? **Explain** why or why not.

FOR THE TEACHER • Read the following problem. Mr. Kelly made 47 muffins. His students ate 23 of the muffins. How many muffins were not eaten?

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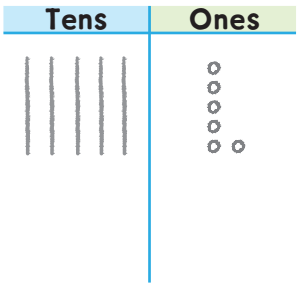
Model and Draw

Trace over the quick pictures in the steps.

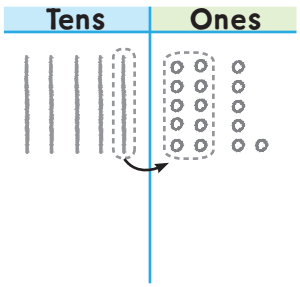
Subtract. $\begin{array}{r} 56 \\ -\,19 \\ \hline \end{array}$

Step 1 Show 56. Are there enough ones to subtract 9?



	Tens	Ones
	5	6
−	1	9

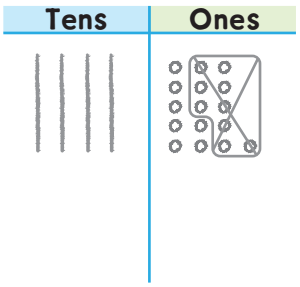
Step 2 If there are not enough ones, regroup 1 ten as 10 ones.



	Tens	Ones
	4	16
	5	6
−	1	9

Step 3 Subtract the ones.

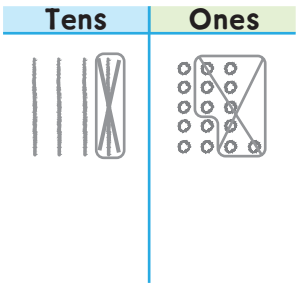
$16 - 9 = 7$



	Tens	Ones
	4	16
	5	6
−	1	9
		7

Step 4 Subtract the tens.

$4 - 1 = 3$



	Tens	Ones
	4	16
	5	6
−	1	9
	3	7

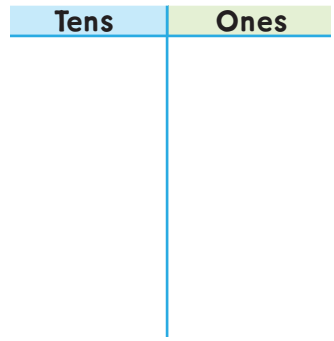
Share and Show

MATH BOARD

Draw a quick picture to solve. Write the difference.

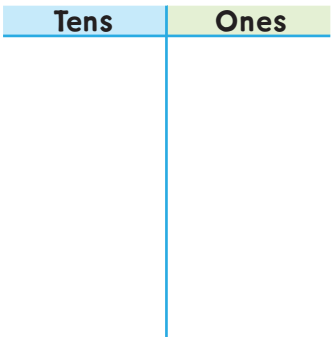
1.

	Tens	Ones
	4	7
−	1	5



2.

	Tens	Ones
	3	2
−	1	8



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Name _____

On Your Own

Draw a quick picture to solve. Write the difference.

3.

	Tens	Ones
	□	□
	3	5
−	2	9

Tens	Ones

4.

	Tens	Ones
	□	□
	2	8
−		5

Tens	Ones

5.

	Tens	Ones
	□	□
	5	3
−	2	6

Tens	Ones

6.

	Tens	Ones
	□	□
	3	2
−	1	3

Tens	Ones

7.

	Tens	Ones
	□	□
	4	4
−	1	7

Tens	Ones

8.

	Tens	Ones
	□	□
	3	8
−	1	8

Tens	Ones

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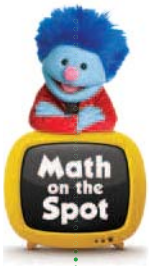
Problem Solving • Applications (Real World) WRITE Math

9. THINK SMARTER Claire's puzzle has 85 pieces. She has used 46 pieces so far. How many puzzle pieces have not been used yet?



_____ puzzle pieces

10. MATHEMATICAL PRACTICE 1 **Analyze** There were some people at the park. 24 people went home. Then there were 19 people at the park. How many people were at the park before?

_____ people

11. THINK SMARTER Mr. Sims has a box of 44 erasers. He gives 28 erasers to his students. How many erasers does Mr. Sims have now?

Show how you solved the problem.

_____ erasers

TAKE HOME ACTIVITY • Write 73 – 28 on a sheet of paper. Ask your child if he or she would regroup to find the difference.

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Name _____

2-Digit Subtraction

Essential Question How do you record the steps when subtracting 2-digit numbers?

Number and Operations in Base Ten—2.NBT.5

Also 2.NBT.9

MATHEMATICAL PRACTICES
MP.3, MP.6, MP.8

Listen and Draw

Real World

Draw a quick picture to model each problem.

Tens	Ones

Tens	Ones

Math Talk **Mathematical Practices**

Explain how you know when to regroup.

FOR THE TEACHER • Read the following problem. Devin had 36 toy robots on his shelf. He moved 12 of the robots to his closet. How many robots are on the shelf now? Repeat the activity with this problem: Devin had 54 toy cars. He gave 9 of them to his brother. How many cars does Devin have now?

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Model and Draw

Subtract. $\begin{array}{r} 42 \\ -\ 15 \\ \hline \end{array}$

Step 1 Are there enough ones to subtract 5?

Tens	Ones
4	2
− 1	5

Step 2 Regroup 1 ten as 10 ones.

Tens	Ones
3	12
4	2
− 1	5

Step 3 Subtract the ones.

$12 - 5 = 7$

Tens	Ones
3	12
4	2
− 1	5
	7

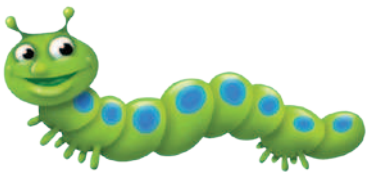
Step 4 Subtract the tens.

$3 - 1 = 2$

Tens	Ones
3	12
4	2
− 1	5
2	7

Share and Show

MATH BOARD



Regroup if you need to. Write the difference.

1. | Tens | Ones |
|---|---|
| 3 | 1 |
| − 1 | 4 |
| | |

2. | Tens | Ones |
|---|---|
| 5 | 6 |
| − 2 | 1 |
| | |

3. | Tens | Ones |
|---|---|
| 7 | 2 |
| − 3 | 5 |
| | |

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Name _____

On Your Own

Regroup if you need to. Write the difference.

4.

Tens	Ones
2	3
− 1	4

5.

Tens	Ones
8	7
− 5	7

6.

Tens	Ones
3	4
− 1	8

7.

Tens	Ones
6	1
− 1	3

8.

4	5
− 1	8

9.

5	2
− 3	6

10.

3	2
− 1	3

11.

7	5
− 4	3

12.

5	6
− 2	7

13.

9	4
− 2	9

14.

8	7
− 3	9

15.

8	3
− 4	6

16. THINK SMARTER Spencer wrote 5 fewer stories than Katie. Spencer wrote 18 stories. How many stories did Katie write?

_____ stories

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Problem Solving • Applications (Real World) WRITE Math

17. MATHEMATICAL PRACTICE 6 **Explain a Method**

Circle the problems below that you could use mental math to solve.

$54 - 10 =$ ____ $63 - 27 =$ ____ $93 - 20 =$ ____

$39 - 2 =$ ____ $41 - 18 =$ ____ $82 - 26 =$ ____

Explain your choices.

_____

_____

_____

Personal Math Trainer

18. THINK SMARTER + There are 34 chickens in the barn. If 16 chickens go outside into the yard, how many chickens will still be in the barn?

Circle the number from the box to make the sentence true.

There are | 8 / 18 / 28 | chickens still in the barn.

TAKE HOME ACTIVITY • Ask your child to write a 2-digit subtraction problem with no regrouping needed. Have your child explain why he or she chose those numbers.

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Name _____

Practice 2-Digit Subtraction

Essential Question How do you record the steps when subtracting 2-digit numbers?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.7

Listen and Draw

Real World

Choose one way to solve the problem.
Draw or write to show what you did.

Math Talk **Mathematical Practices**

Describe a different way that you could have solved the problem.

FOR THE TEACHER • Read the following problem and have children choose their own methods for solving it. There are 74 books in Mr. Barron's classroom. 19 of the books are about computers. How many of the books are not about computers?

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Model and Draw

Carmen had 50 game cards. Then she gave 16 game cards to Theo. How many game cards does Carmen have now?

Step 1 Look at the ones. There are not enough ones to subtract 6 from 0. So, regroup.

$$\begin{array}{r} \cancel{5}\ \cancel{0} \\ -\ 1\ 6 \\ \hline \end{array}$$

Step 2 Subtract the ones.

$10 - 6 = 4$

$$\begin{array}{r} 4\ 10 \\ \cancel{5}\ \cancel{0} \\ -\ 1\ 6 \\ \hline \qquad 4 \end{array}$$

Step 3 Subtract the tens.

$4 - 1 = 3$

$$\begin{array}{r} 4\ 10 \\ \cancel{5}\ \cancel{0} \\ -\ 1\ 6 \\ \hline 3\ 4 \end{array}$$

Share and Show

MATH BOARD

Write the difference.

1. $\begin{array}{r} 3\ 8 \\ -\ 1\ 9 \\ \hline \end{array}$

2. $\begin{array}{r} 6\ 5 \\ -\ 3\ 2 \\ \hline \end{array}$

3. $\begin{array}{r} 5\ 0 \\ -\ 1\ 2 \\ \hline \end{array}$

4. $\begin{array}{r} 2\ 3 \\ -\ \ 4 \\ \hline \end{array}$

5. $\begin{array}{r} 7\ 0 \\ -\ 3\ 8 \\ \hline \end{array}$

6. $\begin{array}{r} 5\ 2 \\ -\ 1\ 7 \\ \hline \end{array}$

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Name _____

On Your Own

Write the difference.

7.

$$\begin{array}{r} 41 \\ -\ 24 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 58 \\ -\ 16 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 60 \\ -\ 13 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 52 \\ -\ 47 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 72 \\ -\ 46 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 37 \\ -\ 6 \\ \hline \end{array}$$

13.

$$\begin{array}{r} 74 \\ -\ 46 \\ \hline \end{array}$$

14.

$$\begin{array}{r} 90 \\ -\ 18 \\ \hline \end{array}$$

15. GO DEEPER Write the missing numbers in the subtraction problems. The regrouping for each problem is shown.

$$\begin{array}{r} 6\ 15 \\ -\ \_\_ \\ \hline 4\ 7 \end{array} \qquad \begin{array}{r} 7\ 13 \\ -\ \_\_ \\ \hline 2\ 5 \end{array}$$

16. THINK SMARTER Adam takes 38 rocks out of a box. There are 23 rocks left in the box. How many rocks were in the box to start?

_____ rocks

TAKE HOME ACTIVITY • Ask your child to show you one way to find 80 − 34.

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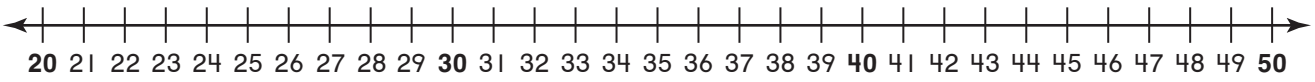
Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Break apart the number you are subtracting. Use the number line to help. Write the difference. (2.NBT.5)



1. 34 − 8 = _____

2. 45 − 17 = _____

Draw a quick picture to solve. Write the difference. (2.NBT.5)

3.

	Tens	Ones
	□	□
	4	2
−	2	9

Tens	Ones

4.

	Tens	Ones
	□	□
	5	4
−	2	3

Tens	Ones

Write the difference. (2.NBT.5)

5.
$$\begin{array}{r} 78 \\ -\ 43 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 60 \\ -\ 26 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 85 \\ -\ 37 \\ \hline \end{array}$$

8. THINK SMARTER Marissa had 51 toy dinosaurs. She gave 14 toy dinosaurs to her brother. How many toy dinosaurs does she have now? (2.NBT.5)

_____ toy dinosaurs

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Name _____

Rewrite 2-Digit Subtraction

Essential Question What are two different ways to write subtraction problems?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Write the numbers for each subtraction problem.

_ _____	_ _____
_ _____	_ _____

Math Talk **Mathematical Practices**

Explain why it is important to line up the digits of the numbers in columns.

FOR THE TEACHER • Read the following problem. Have children write the numbers in vertical format. There were 45 children at a party. Then 23 children went home. How many children were still at the party? Repeat for three more problems.

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Model and Draw

What is 81 − 36?
Rewrite the subtraction problem.
Then find the difference.

Step 1 For 81, write the tens digit in the tens column.

Write the ones digit in the ones column.

Repeat for 36.

$$\begin{array}{r} 8\ 1 \\ -\ 3\ 6 \\ \hline \end{array}$$

Step 2 Look at the ones. Regroup if you need to.

Subtract the ones.
Subtract the tens.

$$\begin{array}{r} \not{7}\ \not{11} \\ \not{8}\ \not{1} \\ -\ 3\ 6 \\ \hline \end{array}$$

Share and Show

MATH BOARD

Rewrite the subtraction problem. Then find the difference.

1. 37 − 4

_____

2. 48 − 24

_____

3. 85 − 37

_____

4. 63 − 19

_____

5. 62 − 37

_____

6. 51 − 27

_____

7. 76 − 3

_____

8. 95 − 48

_____

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Name _____

On Your Own

Rewrite the subtraction problem. Then find the difference.

9. 49 – 8

_____

10. 85 – 47

_____

11. 63 – 23

_____

12. 51 – 23

_____

13. 60 – 15

_____

14. 94 – 58

_____

15. 47 – 20

_____

16. 35 – 9

_____

17. 78 – 10

_____

18. 54 – 38

_____

19. 92 – 39

_____

20. 87 – 28

_____

21. THINK SMARTER For which of the problems above could you find the difference without rewriting it? Explain.

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

Read about the class trip. Then answer the questions.

Pablo's class went to the art museum. They saw 26 paintings done by children. They saw 53 paintings done by adults. They also saw 18 sculptures and 31 photographs.

22. How many more paintings were done by adults than by children?

_____ more paintings

23. GO DEEPER How many more paintings than sculptures did they see?

_____ more paintings

24. THINK SMARTER Tom drew 23 pictures last year. Beth drew 14 pictures. How many more pictures did Tom draw than Beth?

Fill in the bubble next to all the ways to show the problem.

- ○ $\begin{array}{r} 23 \\ -\ 14 \\ \hline \end{array}$
- ○ $\begin{array}{r} 23 \\ +\ 14 \\ \hline \end{array}$
- ○ $23 - 14$
- ○ $23 + 14$

_____ more pictures

TAKE HOME ACTIVITY • Ask your child to write and solve a subtraction problem about a family trip.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Add to Find Differences

Essential Question How can you use addition to solve subtraction problems?

Number and Operations in Base Ten—2.NBT.5

MATHEMATICAL PRACTICES
MP.5, MP.8

Listen and Draw

Real World

Draw pictures to show the problem.
Then write a number sentence for your drawing.

_____ _____ markers

Now draw pictures to show the next part of the problem. Write a number sentence for your drawing.

_____ _____ markers

FOR THE TEACHER • Have children draw pictures to represent this problem. Sophie had 25 markers. She gave 3 markers to Josh. How many markers does Sophie have now? Then ask children: How many markers will Sophie have if Josh gives the 3 markers back to her?

Math Talk **Mathematical Practices**

Describe what happens when you add back the number that you had subtracted.

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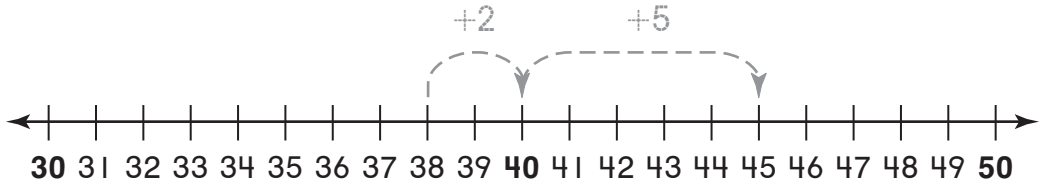
Model and Draw

Count up from the number you are subtracting to find the difference.

$45 - 38 = \square$

Start at 38. Count up to 40.



Then count up 5 more to 45.

$2 + 5 = 7$

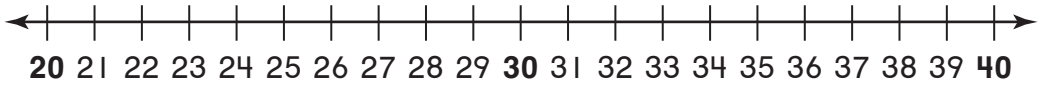
So, $45 - 38 =$ _____.

Share and Show

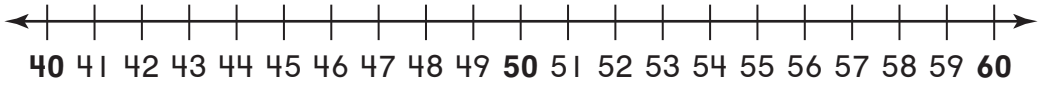
MATH BOARD

Use the number line. Count up to find the difference.

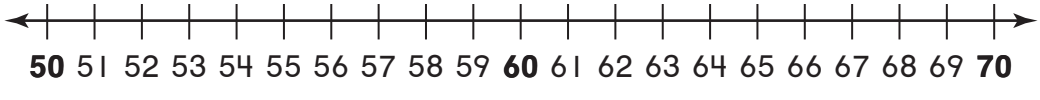
1. $36 - 27 =$ _____



2. $56 - 49 =$ _____



3. $64 - 58 =$ _____



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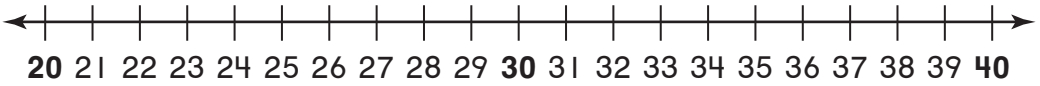
Name _____

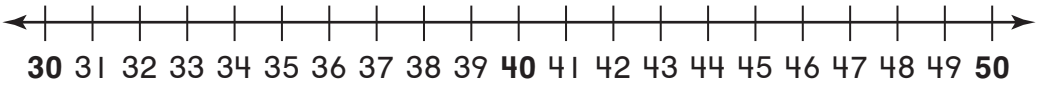
On Your Own

Use the number line. Count up to find the difference.

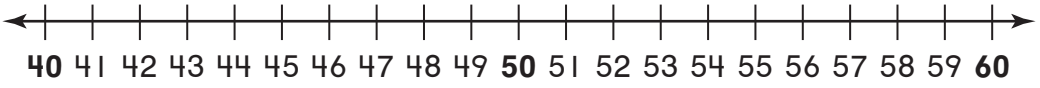
4. 33 − 28 = _____



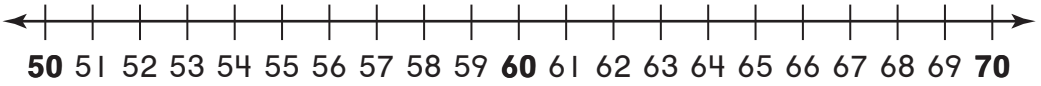
5. 45 − 37 = _____



6. 58 − 49 = _____



7. THINK SMARTER There were 55 books on the table. Sandra picked up some of the books. Now there are 49 books on the table. How many books did Sandra pick up?



_____ books

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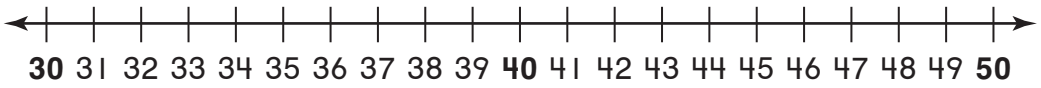
Problem Solving • Applications (Real World) WRITE Math

Solve. You may wish to use the number line to help.



8. There are 46 game pieces in a box. Adam takes 38 game pieces out of the box. How many game pieces are still in the box?

_____ game pieces

9. THINK SMARTER Rachel had 27 craft sticks. Then she gave 19 craft sticks to Theo. How many craft sticks does Rachel have now?

Circle the number from the box to make the sentence true.

Rachel has | 6 / 7 / 8 | craft sticks now.

Explain how you can use addition to solve the problem.

_____

_____

TAKE HOME ACTIVITY • Have your child describe how he or she used a number line to solve one problem in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Subtraction

Essential Question How can drawing a diagram help when solving subtraction problems?

Operations and Algebraic Thinking—2.OA.1; *Also 2.NBT.5*

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Jane and her mom made 33 puppets for the craft fair. They sold 14 puppets. How many puppets do they still have?

Unlock the Problem

What do I need to find?

how many puppets

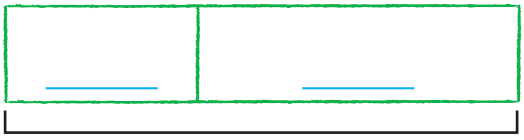
they still have

What information do I need to use?

They made _____ puppets.

They sold _____ puppets.

Show how to solve the problem.



33 − 14 = ■

_____ puppets

HOME CONNECTION • Your child used a bar model and a number sentence to represent the problem. Using a bar model helps show what is known and what is needed to solve the problem.

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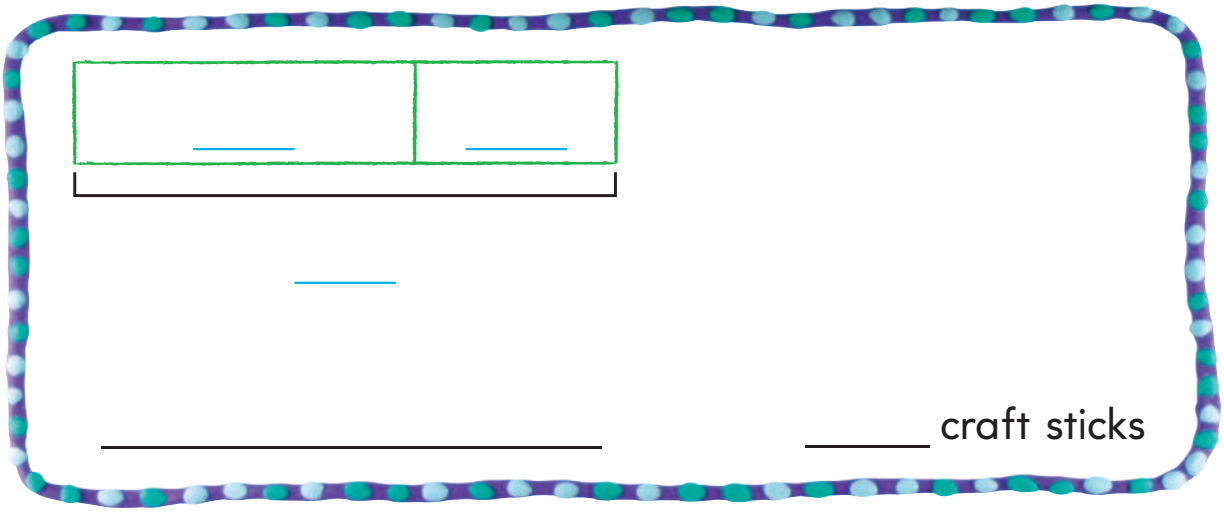
Try Another Problem

Label the bar model. Write a number sentence with a ☐ for the missing number. Solve.

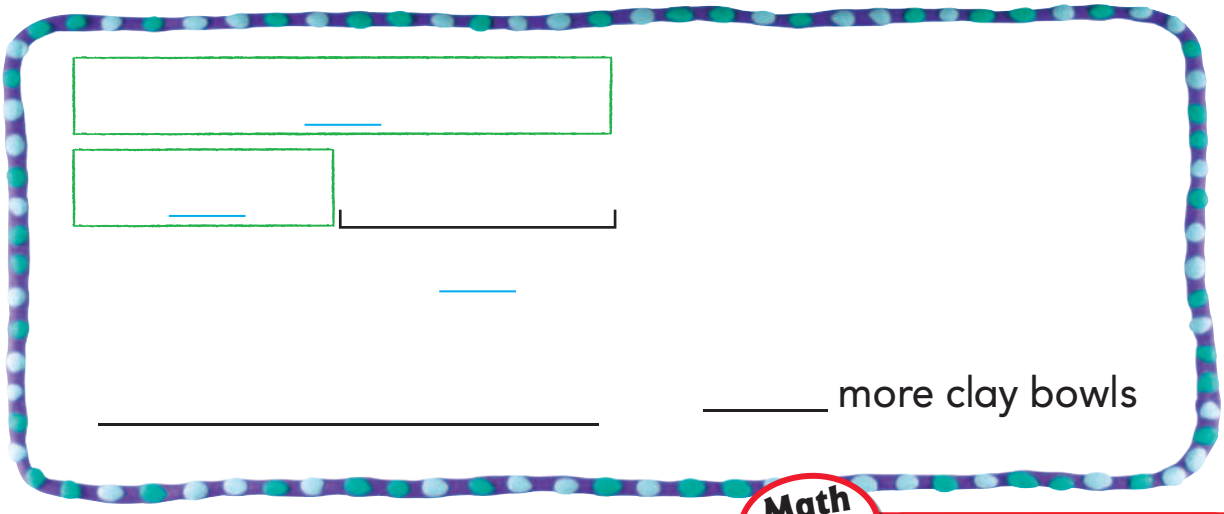
- What do I need to find?
- What information do I need to use?

1. Carlette had a box of 46 craft sticks. She used 28 craft sticks to make a sailboat. How many craft sticks were not used?



_____ craft sticks

2. Rob's class made 31 clay bowls. Sarah's class made 15 clay bowls. How many more clay bowls did Rob's class make than Sarah's class?



_____ more clay bowls

Math Talk **Mathematical Practices**

Explain how you know that Exercise 1 is a take-away problem.

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Name _____

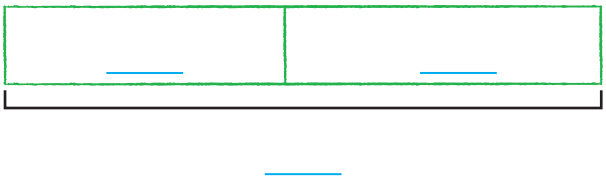
Share and Show

MATH BOARD

Label the bar model. Write a number sentence with a ☐ for the missing number. Solve.

3. Mr. Hayes makes 32 wooden frames. He gives away 15 frames as gifts. How many frames does he still have?

_____ frames

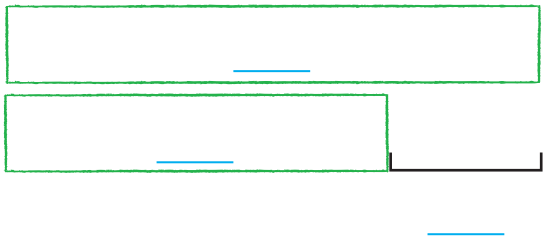


_____

_____

4. Wesley has 21 ribbons in a box. He has 15 ribbons on the wall. How many more ribbons does he have in the box than on the wall?

_____ more ribbons



_____

_____

5. THINK SMARTER Jennifer wrote 9 poems at school and 11 poems at home. She wrote 5 more poems than Nell. How many poems did Nell write?

_____ poems

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On Your Own

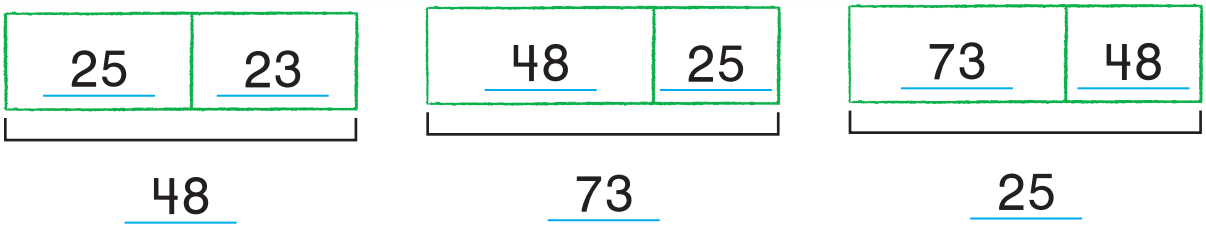
WRITE Math

6. GO DEEPER There are 70 children. 28 children are hiking and 16 are at a picnic. The rest of the children are playing soccer. How many children are playing soccer?

Draw a model with bars for the problem. Describe how your drawing shows the problem. Then solve the problem.

7. THINK SMARTER There are 48 crackers in a bag. The children eat 25 crackers. How many crackers are still in the bag?

Circle the bar model that can be used to solve the problem.



Write a number sentence with a ☐ for the missing number. Solve.

_____

_____ crackers

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one of the problems on this page.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Algebra • Write Equations to Represent Subtraction

Essential Question How do you write a number sentence to represent a problem?

Operations and Algebraic Thinking—2.OA.1 *Also 2.NBT.5*

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.3, MP.4

Listen and Draw

Real World

Draw to show the problem. Write a number sentence. Then solve.

_____

FOR THE TEACHER • Read this problem to children. Franco has 53 crayons. He gives some crayons to Courtney. Now Franco has 38 crayons. How many crayons did Franco give to Courtney?

Math Talk **Mathematical Practices**

Describe how your drawing shows the problem.

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Model and Draw

You can write a number sentence to show a problem.

Liza has 65 postcards. She gives 24 postcards to Wesley. How many postcards does Liza have now?

65 − 24 = ☐

THINK:
65 postcards
−24 postcards
41 postcards

Liza has _____ postcards now.

Share and Show

MATH BOARD

Write a number sentence for the problem. Use a ☐ for the missing number. Then solve.

1. There were 32 birds in the trees. Then 18 birds flew away. How many birds are in the trees now?

_____ _____ birds

2. Carla read 43 pages in her book. Joe read 32 pages in his book. How many more pages did Carla read than Joe?

_____ _____ more pages

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Name _____

On Your Own

Write a number sentence for the problem. Use a ▢ for the missing number. Then solve.

3. There were 40 ants on a rock. Some ants moved to the grass. Now there are 26 ants on the rock. How many ants moved to the grass?

_____ _____ ants

4. THINK SMARTER Keisha had a bag of ribbons. She took 29 ribbons out of the bag. Then there were 17 ribbons still in the bag. How many ribbons were in the bag to start?

_____ _____ ribbons

5. GO DEEPER There are 50 bees in a hive. Some bees fly out. If fewer than 20 bees are still in the hive, how many bees could have flown out?

_____ bees

Use subtraction to prove your answer.

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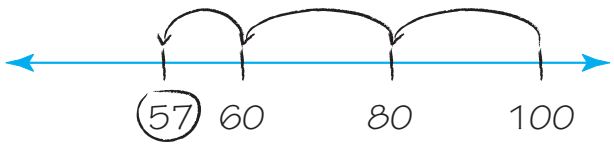
Problem Solving • Applications (Real World) WRITE Math

6. MATHEMATICAL PRACTICE 6 **Make Connections**

Brendan made this number line to find a difference. What was he subtracting from 100? Explain your answer.



7. THINK SMARTER There are 52 pictures on the wall. 37 are wild cats and the rest are birds. How many of the pictures are birds?

Use the numbers and symbols on the tiles to complete the number sentence for the problem.

15	25	37	52	−	+	=

_____

_____ birds

TAKE HOME ACTIVITY • Have your child explain how he or she solved one problem in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Solve Multistep Problems

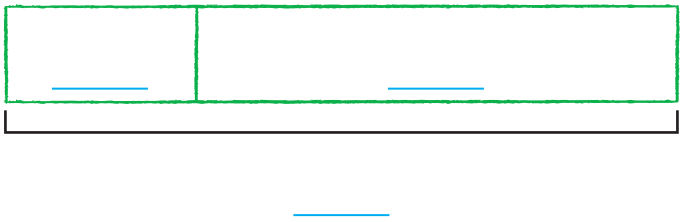
Essential Question How do you decide what steps to do to solve a problem?

Operations and Algebraic Thinking—2.OA.1 *Also 2.NBT.5*

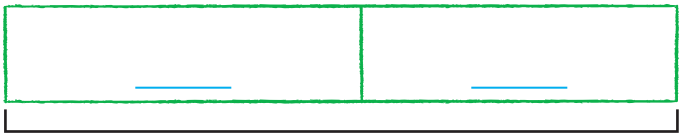
MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Listen and Draw

Label the bar model to show each problem. Then solve.



_____



_____

FOR THE TEACHER • Read this 1st problem for children. Cassie has 32 sheets of paper. She gives Jeff 9 sheets of paper. How many sheets of paper does Cassie have now? After children solve, read this 2nd problem. Cassie draws 18 pictures. Jeff draws 16 pictures. How many pictures do they draw?

Math Talk **Mathematical Practices**

Describe how the two bar models are different.

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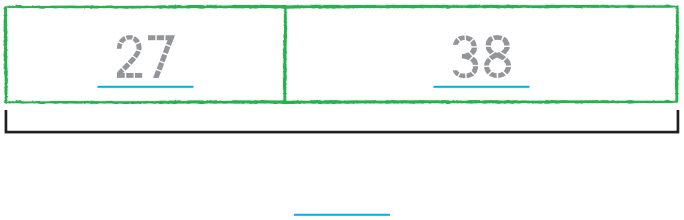
Model and Draw

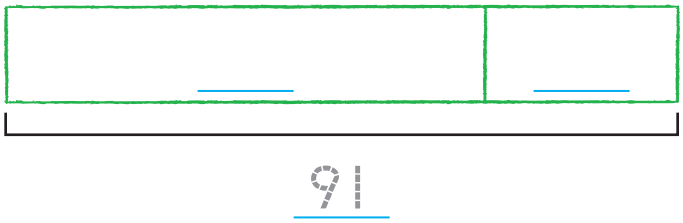
Bar models help you know what to do to solve a problem.

Ali has 27 stamps. Matt has 38 stamps. How many more stamps are needed so they will have 91 stamps?



First, find how many stamps they have now.

They have _____ stamps now.



Next, find how many more stamps they need.

They need _____ more stamps.

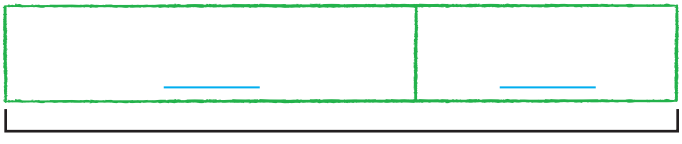
Share and Show

MATH BOARD

Complete the bar models for the steps you do to solve the problem.

THINK: What do you need to find first?

1. Jen has 93 beads. Ana has 46 red beads and 29 blue beads. How many more beads does Ana need to have 93 beads also?



_____

_____ more beads

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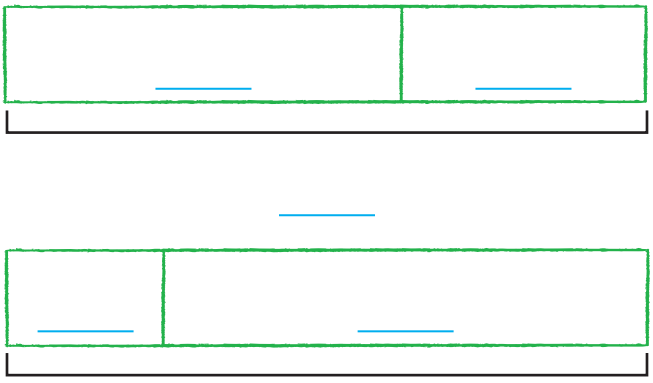
Name _____

On Your Own

Complete the bar models for the steps you do to solve the problem.

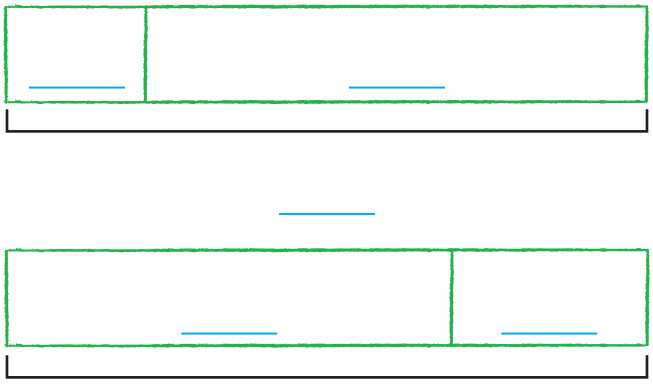
2. Max has 35 trading cards. He buys 22 more cards. Then he gives 14 cards to Rudy. How many cards does Max have now?

_____ cards



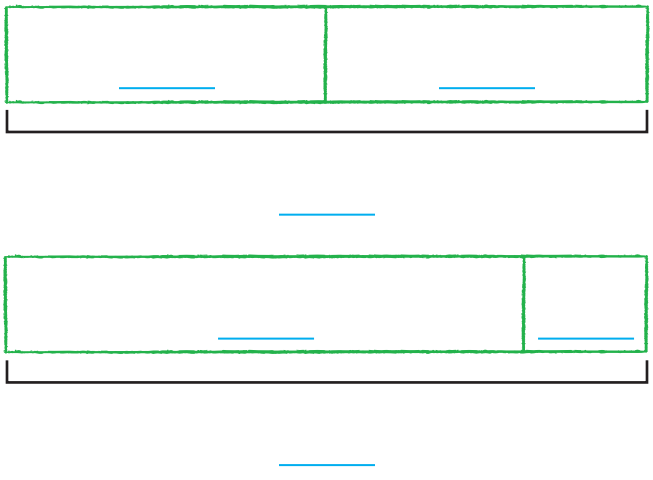
3. Drew has 32 toy cars. He trades 7 of those cars for 11 other toy cars. How many toy cars does Drew have now?

_____ toy cars



4. Marta and Debbie each have 17 ribbons. They buy 1 package with 8 ribbons in it. How many ribbons do they have now?

_____ ribbons



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Problem Solving • Applications (Real World) WRITE Math

5. THINK SMARTER Shelby had 32 rocks. She finds 33 more rocks at the park and gives 28 rocks to George. How many rocks does she have now?

_____ rocks

6. GO DEEPER Benjamin finds 31 pinecones at the park. Together, Jenna and Ellen find the same number of pinecones as Benjamin. How many pinecones could each girl have found?

Jenna: _____ pinecones

Ellen: _____ pinecones

7. THINK SMARTER Tanya finds 22 leaves. Maurice finds 5 more leaves than Tanya finds. How many leaves do the children find? Draw to show how you solve the problem.

_____ leaves

TAKE HOME ACTIVITY • Have your child explain how he or she would solve Exercise 6 if the number 31 was changed to 42.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

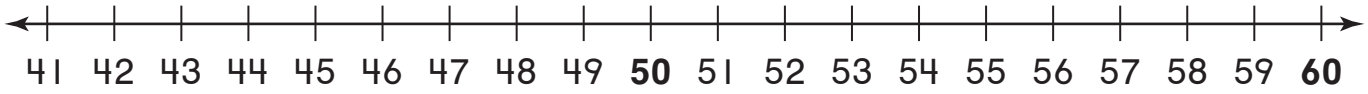
Chapter 5 Review/Test

1. Do you need to regroup to subtract? Choose Yes or No.

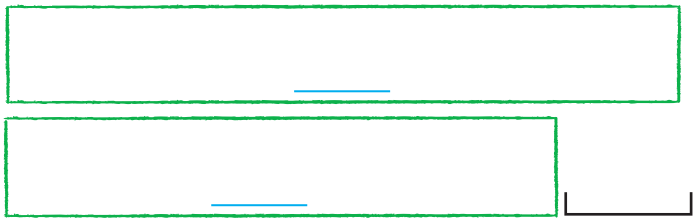
65 − 23	○ Yes	○ No
50 − 14	○ Yes	○ No
37 − 19	○ Yes	○ No
77 − 60	○ Yes	○ No

2. Use the number line. Count up to find the difference.

52 − 48 = _____



3. Ed has 28 blocks. Sue has 34 blocks. Who has more blocks? How many more? Label the bar model. Solve.



Circle the word and number from each box to make the sentence true.

Ed Sue	has	6 16 52	more blocks.

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Break apart the number you are subtracting. Write the difference?

4. 42 − 8 = _____

5. 53 − 16 = _____

6. What is 33 − 19? Use the numbers on the tiles to rewrite the subtraction problem. Then find the difference.

14	19	33	52

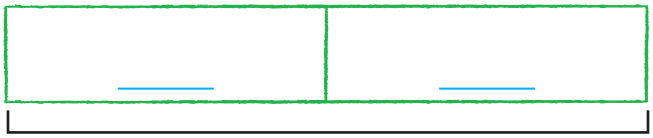
_____

− _____

_____

7. Jacob's puzzle has 84 pieces. Jacob puts together 27 pieces in the morning. He puts together 38 more pieces in the afternoon. How many pieces does Jacob need to put together to finish the puzzle?

Complete the bar models for the steps you do to solve the problem.



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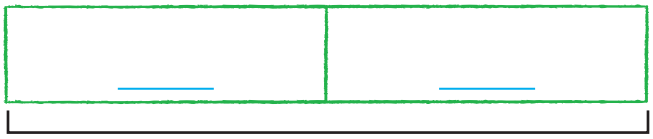

_____

_____ more pieces

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Name _____

Regroup if you need to. Write the difference.

8.

	Tens	Ones
	☐	☐
	5	5
−	2	8

9.

	Tens	Ones
	☐	☐
	3	2
−	1	2

10. Find the difference.

$$\begin{array}{r} 90 \\ -\ 62 \\ \hline \square \end{array}$$

Fill in the bubble next to one number from each column to show the difference.

Tens	Ones
○ 2	○ 1
○ 3	○ 2
○ 5	○ 8

11. There are 22 children at the park. 5 children are on the swings. The rest of the children are playing ball. How many children are playing ball?

○ 13 ○ 23 ○ 17 ○ 27

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12. Subtract 27 from 43. Draw to show the regrouping. Fill in the bubble next to all the ways to write the difference.

- ○ 1 ten 6 ones
- ○ 66
- ○ 6 tens 1 one
- ○ 16

13. Jill collects stamps. Her stamp book has space for 64 stamps. She needs 18 more stamps to fill the book. How many stamps does Jill have now?

Write a number sentence for the problem.

Use a ▢ for the missing number. Then solve.

_____

Jill has _____ stamps.

14. Draw a quick picture to solve. Write the difference.

Tens	Ones
▢	▢
6	2
− 2	5

Tens	Ones

Explain what you did to find the difference.

_____

_____

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Chapter 6

3-Digit Addition and Subtraction

Curious about Math

Monarch butterflies roost together during migration.

If you count 83 butterflies on one tree and 72 on another, how many butterflies have you counted altogether?

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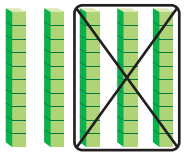
Name _____

Show What You Know

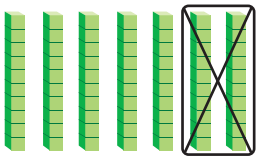
Model Subtracting Tens

Write the difference.

1. 

5 tens − 3 tens = ____ tens

50 − 30 = ____

2. 

7 tens − 2 tens = ____ tens

70 − 20 = ____

2-Digit Addition

Write the sum.

3. $\begin{array}{r} 54 \\ +\ 25 \\ \hline \end{array}$

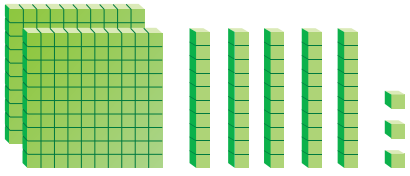
4. $\begin{array}{r} 35 \\ +\ 18 \\ \hline \end{array}$

5. $\begin{array}{r} 82 \\ +\ 67 \\ \hline \end{array}$

6. $\begin{array}{r} 29 \\ +\ 81 \\ \hline \end{array}$

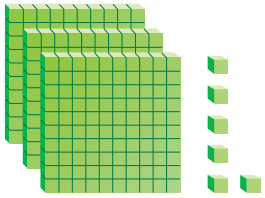
Hundreds, Tens, and Ones

Write the hundreds, tens, and ones shown. Write the number.

7. 

Hundreds	Tens	Ones

_____

8. 

Hundreds	Tens	Ones

_____

This page checks understanding of important skills needed for success in Chapter 6.

Personal Math Trainer
Online Assessment and Intervention

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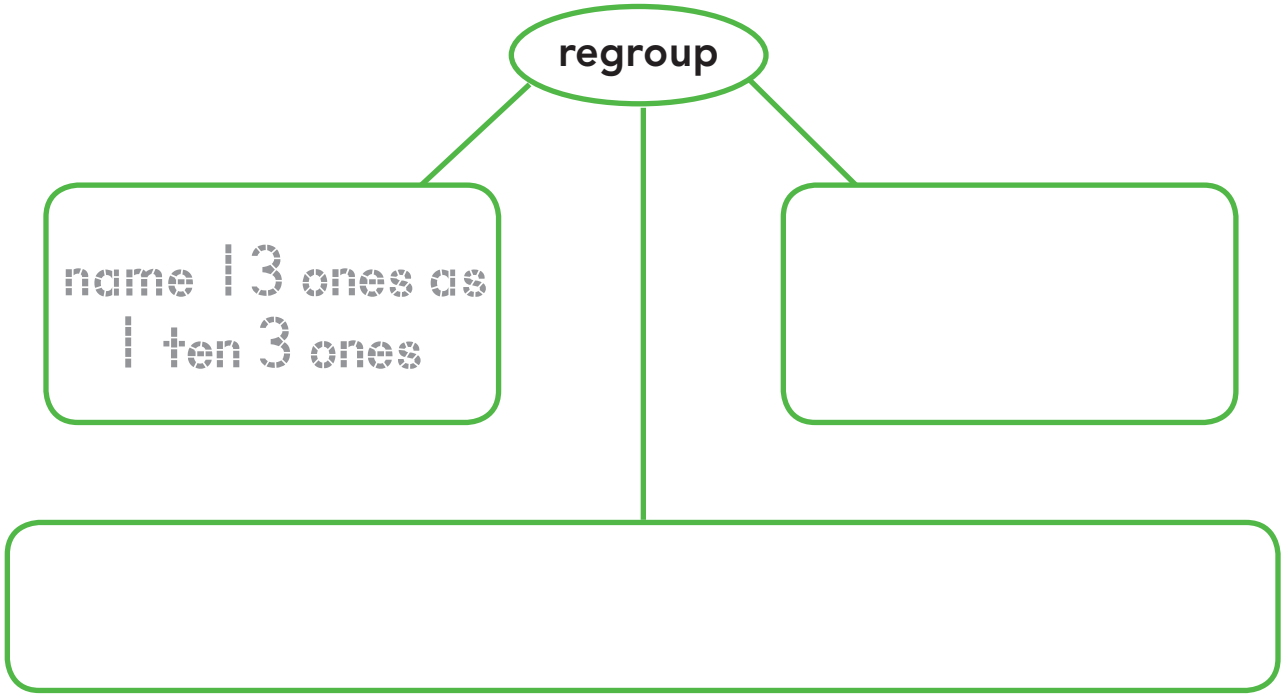
Name _____

Vocabulary Builder

Review Words
regroup
sum
difference
hundreds

Visualize It

Fill in the graphic organizer by writing examples of ways to **regroup**.



Understand Vocabulary

1. Write a number that has a **hundreds** digit that is greater than its tens digit.

_____

2. Write an addition sentence that has a **sum** of 20.

_____

3. Write a subtraction sentence that has a **difference** of 10.

_____

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GO DIGITAL • Interactive Student Edition • Multimedia eGlossary

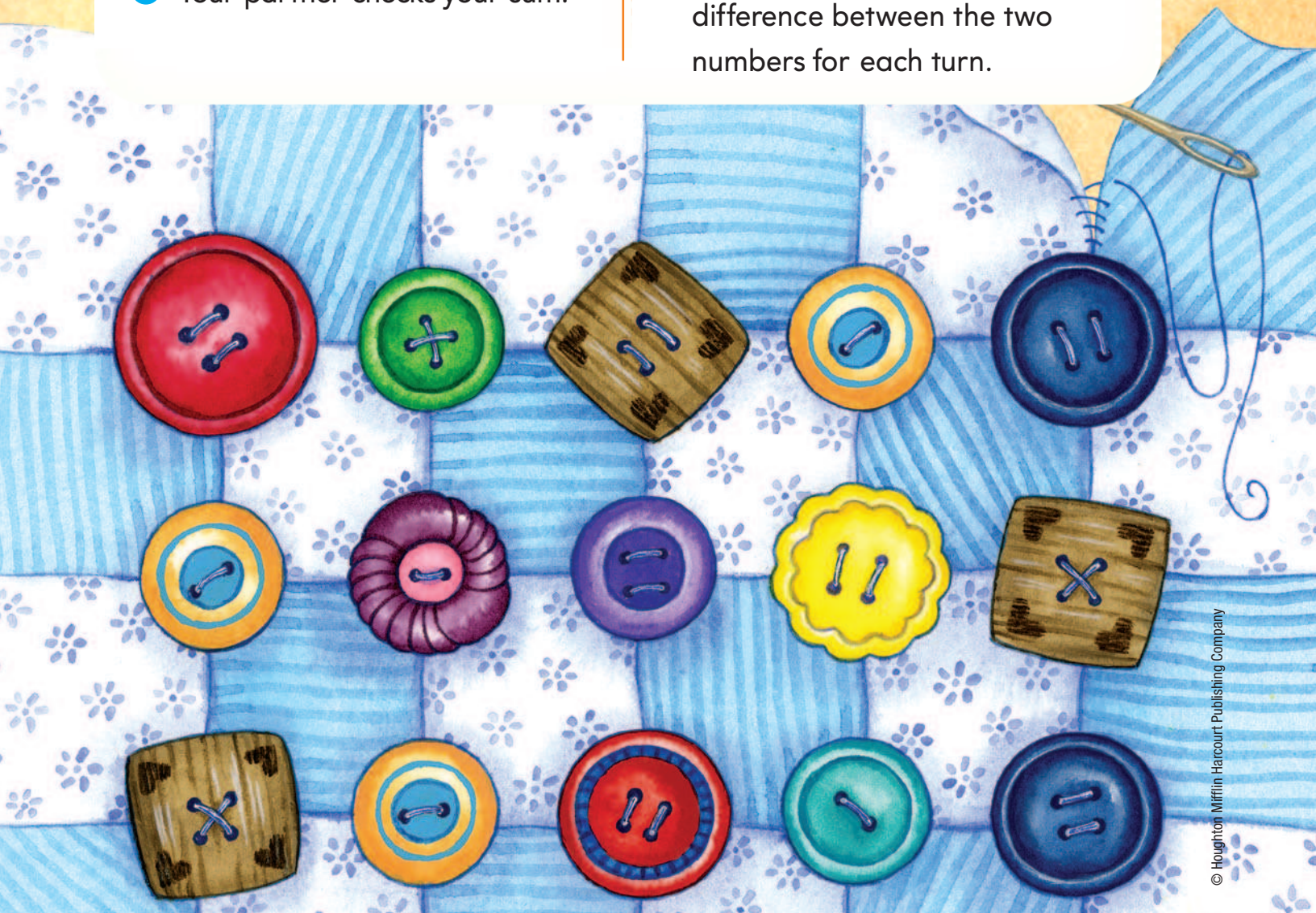
Game 2-Digit Shuffle

Materials

- number cards 10–50
- 15 • 15

Play with a partner.

1. Shuffle the number cards. Place them face down in a pile.
2. Take two cards. Say the sum of the two numbers.
3. Your partner checks your sum.
4. If your sum is correct, place a counter on a button. If you regrouped to solve, place a counter on another button.
5. Take turns. Cover all the buttons. The player with more counters on the board wins.
6. Repeat the game, saying the difference between the two numbers for each turn.



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Name _____

Draw to Represent 3-Digit Addition

Essential Question How do you draw quick pictures to show adding 3-digit numbers?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.5, MP.6

Listen and Draw

Real World

Draw quick pictures to model the problem. Then solve.

Tens	Ones

_____ pages

Math Talk **Mathematical Practices**

Explain how your quick pictures show the problem.

FOR THE TEACHER • Read this problem to children. Manuel read 45 pages in a book. Then he read 31 more pages. How many pages did Manuel read? Have children draw quick pictures to solve the problem.

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Model and Draw

Add 234 and 141.

Hundreds	Tens	Ones

3 hundreds 7 tens 5 ones

375

Share and Show

MATH BOARD

Draw quick pictures. Write how many hundreds, tens, and ones in all. Write the number.

1. Add 125 and 344.

Hundreds	Tens	Ones

_____ hundreds _____ tens _____ ones

_____

2. Add 307 and 251.

Hundreds	Tens	Ones

_____ hundreds _____ tens _____ ones

_____

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Name _____

On Your Own

Draw quick pictures. Write how many hundreds, tens, and ones in all. Write the number.

3. Add 231 and 218.

Hundreds	Tens	Ones

_____ hundreds _____ tens _____ ones

_____

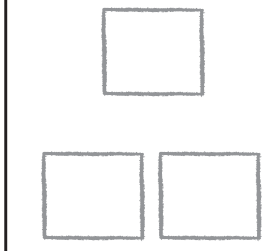
4. Add 232 and 150.

Hundreds	Tens	Ones

_____ hundreds _____ tens _____ ones

_____

5. THINK SMARTER Use the quick pictures to find the two numbers being added. Then write how many hundreds, tens, and ones in all. Write the number.

Hundreds	Tens	Ones
		

Add _____ and _____.

_____ hundreds _____ tens _____ ones

_____

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Problem Solving • Applications (Real World) WRITE Math

6. MATHEMATICAL PRACTICE 2 **Represent a Problem**

There are 125 poems in Carrie's book and 143 poems in Angie's book. How many poems are in these two books?

Draw a quick picture to solve.

_____ poems

Personal Math Trainer

7. THINK SMARTER + Rhys wants to add 456 and 131.

Help Rhys solve this problem. Draw quick pictures. Write how many hundreds, tens, and ones in all. Write the number.

Hundreds	Tens	Ones

_____ hundreds _____ tens _____ ones

_____

TAKE HOME ACTIVITY • Write 145 + 122. Have your child explain how he or she can draw quick pictures to find the sum.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Break Apart 3-Digit Addends

Essential Question How do you break apart addends to add hundreds, tens, and then ones?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Write the number. Draw a quick picture for the number. Then write the number in different ways.

_____

_____ hundreds _____ tens _____ ones

_____ + _____ + _____

_____

_____ hundreds _____ tens _____ ones

_____ + _____ + _____

Math Talk **Mathematical Practices**

What number can be written as 400 + 20 + 9?

FOR THE TEACHER • Have children write 258 on the blank in the left corner of the first box. Have children draw a quick picture for this number and then complete the other two forms for the number. Repeat the activity for 325.

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Model and Draw

Break apart the addends into hundreds, tens, and ones. Add the hundreds, the tens, and the ones. Then find the total sum.

538 ⟶ 500 + 30 + 8

+216 ⟶ 200 + 10 + 6

700 + ___ + ___ = ___

Share and Show

MATH BOARD

Break apart the addends to find the sum.

1. 321 ⟶ ___ + ___ + ___

   +457 ⟶ ___ + ___ + ___

   ___ + ___ + ___ = ___

2. 744 ⟶ ___ + ___ + ___

   +162 ⟶ ___ + ___ + ___

   ___ + ___ + ___ = ___

3. 254 ⟶ ___ + ___ + ___

   +536 ⟶ ___ + ___ + ___

   ___ + ___ + ___ = ___

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Name _____

On Your Own

Break apart the addends to find the sum.

4. 374 ⟶ _____ + _____ + _____

+518 ⟶ _____ + _____ + _____

_____ + _____ + _____ = _____

5. 425 ⟶ _____ + _____ + _____

+232 ⟶ _____ + _____ + _____

_____ + _____ + _____ = _____

6. 849 ⟶ _____ + _____ + _____

+123 ⟶ _____ + _____ + _____

_____ + _____ + _____ = _____

7. THINK SMARTER Mr. Jones has many sheets of paper. He has 158 sheets of blue paper, 100 sheets of red paper, and 231 sheets of green paper. How many sheets of paper does he have?

_____ sheets of paper

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Problem Solving • Applications (Real World) WRITE Math

8. GO DEEPER Wesley added in a different way.

$$\begin{array}{r} 327 \\ +\ 468 \\ \hline 700 \\ 80 \\ +\ 15 \\ \hline 795 \end{array}$$

7 hundreds
8 tens
15 ones

Use Wesley's way to find the sum.

$$\begin{array}{r} 539 \\ +\ 247 \\ \hline \end{array}$$

9. THINK SMARTER There are 376 children at one school. There are 316 children at another school. How many children are at the two schools?

$$\begin{array}{rcl} 376 & \longrightarrow & 300 + 70 + 6 \\ +\ 316 & \longrightarrow & 300 + 10 + 6 \end{array}$$

Select one number from each column to solve the problem.

Hundreds	Tens	Ones
○ 2	○ 4	○ 2
○ 4	○ 8	○ 3
○ 6	○ 9	○ 6

TAKE HOME ACTIVITY • Write 347 + 215. Have your child break apart the numbers and then find the sum.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

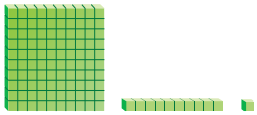
3-Digit Addition: Regroup Ones

Essential Question When do you regroup ones in addition?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Use  to model the problem.
Draw quick pictures to show what you did.

Hundreds	Tens	Ones

Math Talk **Mathematical Practices**

Describe how you modeled the problem.

FOR THE TEACHER • Read the following problem and have children model it with blocks. There were 213 people at the show on Friday and 156 people at the show on Saturday. How many people were at the show on the two nights? Have children draw quick pictures to show how they solved the problem.

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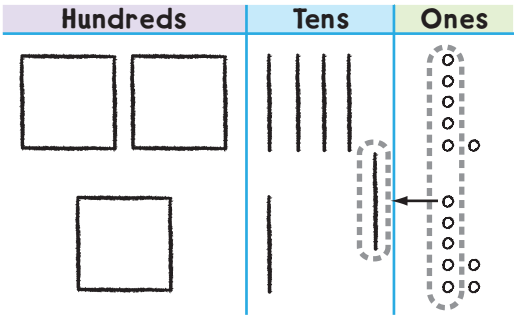
Model and Draw

Add the ones.

$6 + 7 = 13$

Regroup 13 ones as 1 ten 3 ones.

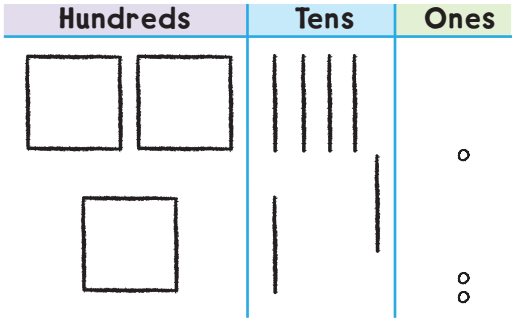
Hundreds	Tens	Ones
	1	
2	4	6
+ 1	1	7
		3



Add the tens.

$1 + 4 + 1 = 6$

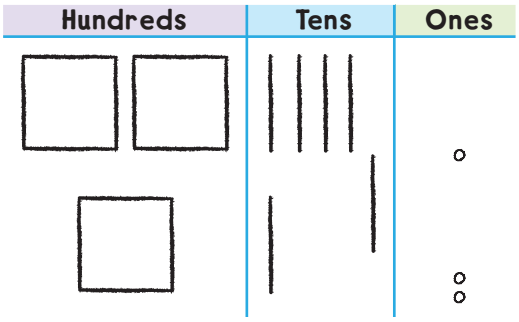
Hundreds	Tens	Ones
	1	
2	4	6
+ 1	1	7
	6	3



Add the hundreds.

$2 + 1 = 3$

Hundreds	Tens	Ones
	1	
2	4	6
+ 1	1	7
3	6	3



Share and Show

MATH BOARD

Write the sum.

1.

Hundreds	Tens	Ones
	□	
3	2	8
+ 1	3	4

2.

Hundreds	Tens	Ones
	□	
4	4	5
+	2	3

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Name _____

On Your Own

Write the sum.

3.

	Hundreds	Tens	Ones
		☐	
	5	2	6
+	1	0	3

4.

	Hundreds	Tens	Ones
		☐	
	3	4	8
+		1	9

5.

	Hundreds	Tens	Ones
		☐	
	6	2	8
+	3	4	7

6.

	Hundreds	Tens	Ones
		☐	
	2	3	5
+	2	5	7

7.

	Hundreds	Tens	Ones
		☐	
	5	6	2
+	3	2	9

8.

	Hundreds	Tens	Ones
		☐	
	1	4	7
+	1	2	5

9. THINK SMARTER On Thursday, there were 326 visitors at the zoo. There were 200 more visitors at the zoo on Friday than on Thursday. How many visitors were at the zoo on both days?

_____ visitors

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

10. MATHEMATICAL PRACTICE **Model with Mathematics** The gift shop is 140 steps away from the zoo entrance. The train stop is 235 steps away from the gift shop. How many total steps is this?

_____ steps

11. THINK SMARTER Katina's class used 249 noodles to decorate their bulletin board. Gunter's class used 318 noodles. How many noodles did the two classes use? _____ noodles

Did you have to regroup to solve? Explain.

TAKE HOME ACTIVITY • Ask your child to explain why he or she regrouped in only some of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

3-Digit Addition: Regroup Tens

Essential Question When do you regroup tens in addition?

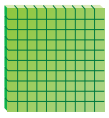
Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Hands On

Use  to model the problem.
Draw quick pictures to show what you did.

Hundreds	Tens	Ones

Math Talk

Mathematical Practices

Explain how your quick pictures show what happened in the problem.

FOR THE TEACHER • Read the following problem and have children model it with blocks. On Monday, 253 children visited the zoo. On Tuesday, 324 children visited the zoo. How many children visited the zoo those two days? Have children draw quick pictures to show how they solved the problem.

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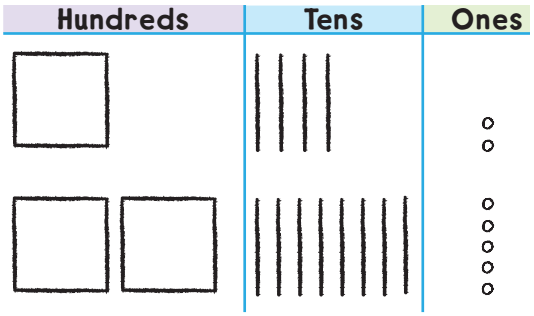
Model and Draw

Add the ones.

$2 + 5 = 7$

Hundreds	Tens	Ones
1	4	2
+ 2	8	5
		7

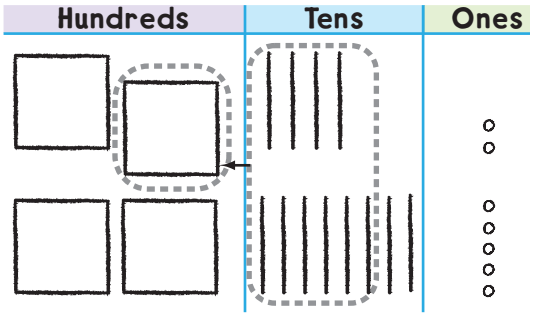


Add the tens.

$4 + 8 = 12$

Regroup 12 tens as 1 hundred 2 tens.

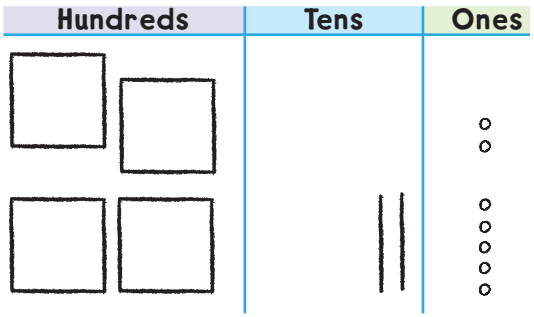
Hundreds	Tens	Ones
1	4	2
+ 2	8	5
	2	7



Add the hundreds.

$1 + 1 + 2 = 4$

Hundreds	Tens	Ones
1	4	2
+ 2	8	5
4	2	7



Share and Show

MATH BOARD

Write the sum.

1.

Hundreds	Tens	Ones
3	4	7
+ 2	9	1

2.

Hundreds	Tens	Ones
1	6	5
+ 3	5	4

3.

Hundreds	Tens	Ones
5	3	8
+ 1	4	0

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Name _____

On Your Own

Write the sum.

4.

Hundreds	Tens	Ones
□	□	
1	5	6
+	4	2

5.

Hundreds	Tens	Ones
□	□	
7	6	4
+ 1	5	3

6.

Hundreds	Tens	Ones
□	□	
3	7	2
+ 1	8	5

7.

2	2	4
+ 1	5	7

8.

2	5	4
+ 4	0	5

9.

6	4	4
+	9	2

10.

$$\begin{array}{r} 132 \\ +\ 258 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 314 \\ +\ 435 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 753 \\ +\ 152 \\ \hline \end{array}$$

MATHEMATICAL PRACTICE 6 **Attend to Precision**

Rewrite the numbers. Then add.

13. 760 + 178

+

_____

14. 216 + 346

+

_____

15. 423 + 285

+

_____

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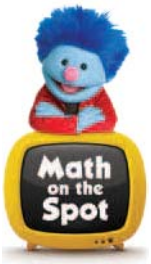
Problem Solving • Applications (Real World) WRITE Math

16. THINK SMARTER These lists show the pieces of fruit sold. How many pieces of fruit did Mr. Olson sell?



Mr. Olson	Mr. Lee
257 apples 281 plums	314 pears 229 peaches

_____ pieces of fruit

17. GO DEEPER Who sold more pieces of fruit?

_____

How many more?

_____ more pieces of fruit

18. THINK SMARTER At the city park theater, 152 people watched the morning play. Another 167 watched the afternoon play.

How many people watched the two plays? _____ people

Fill in the bubble next to each true sentence about how to solve the problem.

- ○ You need to regroup the tens as 1 ten and 9 ones.
- ○ You need to regroup the tens as 1 hundred and 1 ten.
- ○ You need to add 2 ones + 7 ones.
- ○ You need to add 1 hundred + 1 hundred + 1 hundred.

TAKE HOME ACTIVITY • Have your child choose a new combination of two fruits on this page and find the total number of pieces of the two types of fruit.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Addition: Regroup Ones and Tens

Essential Question How do you know when to regroup in addition?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Use mental math. Write the sum for each problem.

40 + 20	200 + 700	70 + 30	500 + 300

10 + 30 + 40 = _____

100 + 400 + 200 = _____

10 + 50 + 40 = _____

600 + 300 = _____

Math Talk **Mathematical Practices**

Were some problems easier to solve than other problems? **Explain**.

FOR THE TEACHER • Encourage children to do these addition problems quickly. You may wish to first discuss the problems with children, noting that each problem is limited to just adding tens or just adding hundreds.

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Model and Draw

Sometimes you will regroup more than once in addition problems.

$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ } \\ 259 \\ +\ 476 \\ \hline 735 \end{array}$$

9 ones + 6 ones = 15 ones, or 1 ten 5 ones

1 ten + 5 tens + 7 tens = 13 tens, or 1 hundred 3 tens

1 hundred + 2 hundreds + 4 hundreds = 7 hundreds

THINK:
Are there 10 or more ones?
Are there 10 or more tens?

Share and Show

MATH BOARD

Write the sum.

1.

$$\begin{array}{r} 184 \\ +\ 329 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 546 \\ +\ 278 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 327 \\ +\ 353 \\ \hline \end{array}$$

4.

$$\begin{array}{r} 234 \\ +\ 152 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 375 \\ +\ 272 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 189 \\ +\ 623 \\ \hline \end{array}$$

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Name _____

On Your Own

Write the sum.

7.

$$\begin{array}{r} 574 \\ +\ 281 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 416 \\ +\ 483 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 346 \\ +\ 597 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 365 \\ +\ 283 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 647 \\ +\ 109 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 546 \\ +\ 356 \\ \hline \end{array}$$

13.

$$\begin{array}{r} 348 \\ +\ 631 \\ \hline \end{array}$$

14.

$$\begin{array}{r} 455 \\ +\ 139 \\ \hline \end{array}$$

15.

$$\begin{array}{r} 563 \\ +\ 245 \\ \hline \end{array}$$

16. THINK SMARTER Miko wrote these problems. What are the missing digits?

$$\begin{array}{r} \square\ \square\ 6 \\ +\ 4\ 5\ \square \\ \hline 6\ 9\ 0 \end{array}$$

$$\begin{array}{r} 6\ \square\ 7 \\ +\ 2\ 3\ \square \\ \hline \square\ 6\ 2 \end{array}$$

TAKE HOME ACTIVITY • Have your child explain how to solve 236 + 484.

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Break apart the addends to find the sum. (2.NBT.7)

1. 567 → _____ + _____ + _____

   +324 → _____ + _____ + _____

   _____ + _____ + _____ = _____

Write the sum. (2.NBT.7)

2.
$$\begin{array}{r} 248 \\ +\ 346 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 610 \\ +\ 264 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 391 \\ +\ 537 \\ \hline \end{array}$$

5. THINK SMARTER There are 148 small sand dollars and 119 large sand dollars on the beach. How many sand dollars are on the beach? (2.NBT.7)

_____ sand dollars

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Name _____

Estimation in 3-Digit Addition

Essential Question How do you make reasonable estimates when solving problems?

Number and Operations in Base Ten—2.NBT.7.1

MATHEMATICAL PRACTICES
MP.8

Listen and Draw

How many hundreds does each number have?

427 has _____ hundreds.

651 has _____ hundreds.

348 has _____ hundreds.

What is each sum?

500 + 100	300 + 400	600 + 200	100 + 800

FOR THE TEACHER • The activity in the first box is a review of identifying the hundreds digit and describing its value in a 3-digit number. The activity in the second box is for practicing the mental math skill of adding multiples of hundreds.

Math Talk **Mathematical Practices**

Describe how you found the sum for each addition problem.

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Model and Draw

An **estimate** tells about how many.

Look at the hundreds digits.

Use an estimate when an exact answer is not needed.

$$\begin{array}{r} 518 \\ +\ 336 \\ \hline \end{array} \longrightarrow \begin{array}{r} 500 \\ +\ 300 \\ \hline 800 \end{array}$$

An estimate for the sum is _____.

Share and Show

MATH BOARD

Use the values of the hundreds digits to estimate the sum.

1. $\begin{array}{r} 257 \\ +\ 320 \\ \hline \end{array} \longrightarrow \ +\ \_\_\_\_$

An estimate for the sum is _____.

2. $\begin{array}{r} 719 \\ +\ 138 \\ \hline \end{array} \longrightarrow \ +\ \_\_\_\_$

An estimate for the sum is _____.

3. $\begin{array}{r} 231 \\ +\ 525 \\ \hline \end{array} \longrightarrow \ +\ \_\_\_\_$

An estimate for the sum is _____.

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Name _____

On Your Own

Use the values of the hundreds digits to estimate the sum.

4. $\begin{array}{r} 625 \\ +\ 309 \\ \hline \end{array}$ → $+$ ____

An estimate for the sum is _____.

5. THINK SMARTER There are 246 children at Debbie's school. There are 328 children at Jacob's school. Without adding, explain how you could estimate the number of children at the two schools.

_____

_____

_____

6. MATHEMATICAL PRACTICE 3 **Verify the Reasoning of Others**

There are two boxes of crayons. There are 138 crayons in the first box and 309 crayons in the second box. Manuel estimates that there are about 700 crayons altogether.

Do you agree? Explain why.

_____

_____

_____

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Problem Solving • Applications Real World

Solve. Write or draw to explain.

7. GO DEEPER Daniel has two boxes of trading cards. There are 327 cards in one box and 418 cards in the other box.

If he buys a pack of 225 cards, estimate the number of cards that he will have then.

Write or draw to show how you made your estimate.

about _____ cards

8. THINK SMARTER Andy's family drove 318 miles on Saturday and 553 miles on Sunday. About how far did Andy's family drive in all?

Fill in the bubble next to all the sentences that describe what you would do to estimate the distance.

- ○ I would add 300 + 500.
- ○ I would regroup the tens.
- ○ I would add the hundreds digits.
- ○ I would add 100 to the hundreds digits.

TAKE HOME ACTIVITY • Have your child describe what he or she learned in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • 3-Digit Subtraction

Essential Question How can making a model help when solving subtraction problems?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.1, MP.4

There were 436 people at the art show. 219 people went home. How many people stayed at the art show?

Unlock the Problem

Real World

Hands On

What do I need to find?

how many people _____

stayed at the art show

What information do I need to use?

_____ people were at the art show.

Then, _____ people went home.

Show how to solve the problem.

Make a model. Then draw a quick picture of your model.

_____ people

HOME CONNECTION • Your child used a model and a quick picture to represent and solve a subtraction problem.

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Try Another Problem

Make a model to solve. Then draw a quick picture of your model.

- What do I need to find?
- What information do I need to use?

1. There are 532 pieces of art at the show. 319 pieces of art are paintings. How many pieces of art are not paintings?

_____ pieces of art

2. 245 children go to the face-painting event. 114 of the children are boys. How many of the children are girls?

_____ girls

Math Talk **Mathematical Practices**

Explain how you solved the first problem on this page.

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Name _____

Share and Show

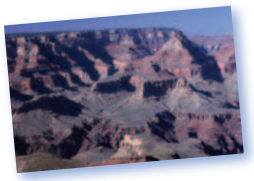
MATH BOARD

Make a model to solve. Then draw a quick picture of your model.

3. There were 237 books on the table. Miss Jackson took 126 books off the table. How many books were still on the table?

_____ books

4. There were 232 postcards on the table. The children used 118 postcards. How many postcards were not used?



_____ postcards

5. THINK SMARTER 164 children and 31 adults saw the movie in the morning. 125 children saw the movie in the afternoon. How many fewer children saw the movie in the afternoon than in the morning?

_____ fewer children

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On Your Own

MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

6. There were some grapes in a bowl. Clancy's friends ate 24 of the grapes. Then there were 175 grapes in the bowl. How many grapes were in the bowl before?

_____ grapes

7. THINK SMARTER At Gregory's school, there are 547 boys and girls. There are 246 boys. How many girls are there?

Draw a quick picture to solve.

Circle the number that makes the sentence true.

There are | 201 | 301 | 793 | girls.

TAKE HOME ACTIVITY • Ask your child to choose one of the problems in this lesson and solve it in a different way.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

3-Digit Subtraction: Regroup Tens

Essential Question When do you regroup tens in subtraction?

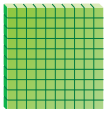
Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Hands On



Use to model the problem.
Draw a quick picture to show what you did.

Hundreds	Tens	Ones

Math Talk **Mathematical Practices**

Describe what to do when there are not enough ones to subtract from.

FOR THE TEACHER • Read the following problem and have children model it with blocks. 473 people went to the football game. 146 people were still there at the end of the game. How many people left before the end of the game? Have children draw quick pictures of their models.

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Model and Draw

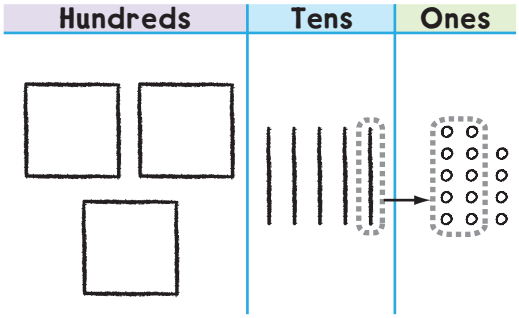
$354 - 137 = ?$

Are there enough ones to subtract 7?

yes (no)

Regroup 1 ten as 10 ones.

	Hundreds	Tens	Ones
		4	14
	3	5	4
−	1	3	7

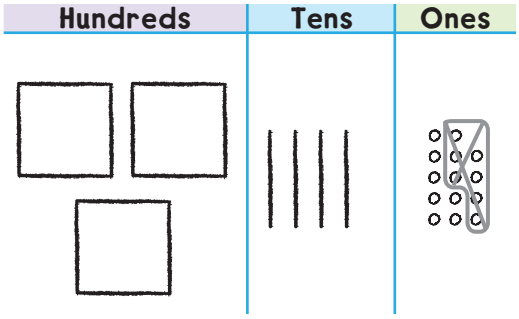


Now there are enough ones.

Subtract the ones.

$14 - 7 = 7$

	Hundreds	Tens	Ones
		4	14
	3	5	4
−	1	3	7
			7



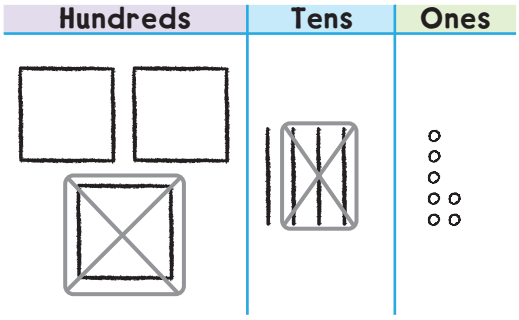
Subtract the tens.

$4 - 3 = 1$

Subtract the hundreds.

$3 - 1 = 2$

	Hundreds	Tens	Ones
		4	14
	3	5	4
−	1	3	7
	2	1	7



Share and Show

MATH BOARD

Solve. Write the difference.

1.

	Hundreds	Tens	Ones
		□	□
	4	3	1
−	3	2	6

2.

	Hundreds	Tens	Ones
		□	□
	6	5	8
−	2	3	7

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Name _____

On Your Own

Solve. Write the difference.

3.

Hundreds	Tens	Ones
	□	□
7	2	8
− 1	0	7

4.

Hundreds	Tens	Ones
	□	□
4	5	2
− 2	1	6

5.

Hundreds	Tens	Ones
	□	□
9	6	5
− 2	3	8

6.

Hundreds	Tens	Ones
	□	□
4	8	9
− 1	4	9

7.

Hundreds	Tens	Ones
	□	□
6	4	5
− 2	2	7

8.

Hundreds	Tens	Ones
	□	□
6	7	0
− 1	3	8

9. THINK SMARTER There were 287 music books and 134 science books in the store. After some books were sold, there are 159 books left. How many books were sold?

_____ books

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Solve. Write or draw to explain.

10. There are 235 whistles and 42 bells in the store. Ryan counts 128 whistles on the shelf. How many whistles are not on the shelf?

_____ whistles

Personal Math Trainer

11. THINK SMARTER + Dr. Jackson had 326 stamps.

He sells 107 stamps. How many stamps does he have now? _____ stamps

Would you do these things to solve the problem?
Choose Yes or No.

Subtract 107 from 326.	○ Yes	○ No
Regroup 1 ten as 10 ones.	○ Yes	○ No
Regroup the hundreds.	○ Yes	○ No
Subtract 7 ones from 16 ones.	○ Yes	○ No
Add 26 + 10.	○ Yes	○ No

TAKE HOME ACTIVITY • Ask your child to explain why he or she regrouped in only some of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

3-Digit Subtraction: Regroup Hundreds

Essential Question When do you regroup hundreds in subtraction?

Number and Operations in Base Ten—2.NBT.7, 2.NBT.9

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Draw quick pictures to show the problem.

Hundreds	Tens	Ones

Math Talk

Mathematical Practices

Describe what to do when there are not enough tens to subtract from.

FOR THE TEACHER • Read the following problem and have children model it with quick pictures. The Reading Club has 349 books. 173 of the books are about animals. How many books are not about animals?

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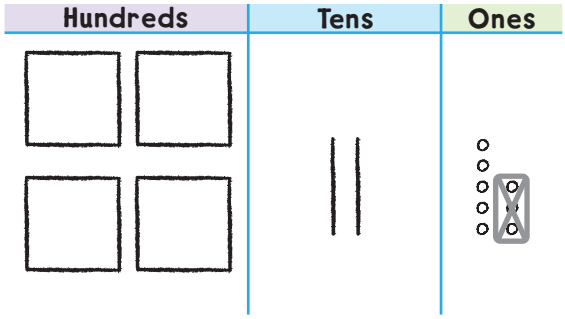
Model and Draw

$428 - 153 = ?$

Subtract the ones.

$8 - 3 = 5$

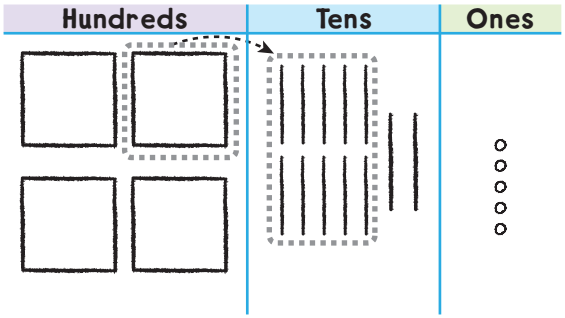
	Hundreds	Tens	Ones
	4	2	8
−	1	5	3
			5



There are not enough tens to subtract from.

Regroup 1 hundred. 4 hundreds 2 tens is now 3 hundreds 12 tens.

	Hundreds	Tens	Ones
	3	12	
	~~4~~	~~2~~	8
−	1	5	3
			5



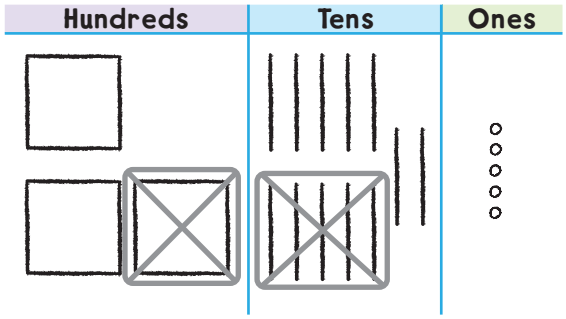
Subtract the tens.

$12 - 5 = 7$

Subtract the hundreds.

$3 - 1 = 2$

	Hundreds	Tens	Ones
	3	12	
	~~4~~	~~2~~	8
−	1	5	3
	2	7	5



Share and Show

MATH BOARD

Solve. Write the difference.

1.

	Hundreds	Tens	Ones
	4	7	8
−	3	5	6	

2.

	Hundreds	Tens	Ones
	8	1	4
−	2	6	3

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Name _____

On Your Own

Solve. Write the difference.

3.

Hundreds	Tens	Ones
□	□	□
6	2	9
− 4	8	2

4.

Hundreds	Tens	Ones
□	□	□
9	3	6
− 1	7	3

5.

4	3	5
− 1	9	2

6.

3	8	7
−	4	7

7.

$$\begin{array}{r} 588 \\ -\ 450 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 345 \\ -\ 263 \\ \hline \end{array}$$

MATHEMATICAL PRACTICE 3

Make Arguments

9. Choose one exercise above. Describe the subtraction that you did. Be sure to tell about the values of the digits in the numbers.

_____

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

10. THINK SMARTER Sam made two towers. He used 139 blocks for the first tower. He used 276 blocks in all. For which tower did he use more blocks? _____

Explain how you solved the problem.

_____

_____

11. THINK SMARTER This is how many points each class scored in a math game.

How many more points did Mr. Chang's class score than Mr. Pagano's class? Draw a picture and explain how you found your answer.

_____ more points

TAKE HOME ACTIVITY • Have your child explain how to find the difference for 745 – 341.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Subtraction: Regroup Hundreds and Tens

Essential Question How do you know when to regroup in subtraction?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Use mental math. Write the difference for each problem.

50 − 20	600 − 400	80 − 30	900 − 300

90 − 40 = _____

700 − 500 = _____

70 − 60 = _____

800 − 300 = _____

Math Talk **Mathematical Practices**

Were some problems easier to solve than other problems? **Explain.**

FOR THE TEACHER • Encourage children to do these subtraction problems quickly. You may wish to first discuss the problems with children, noting that each problem is limited to just subtracting tens or just subtracting hundreds.

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Model and Draw

Sometimes you will regroup more than once in subtraction problems.

$$\begin{array}{rccc} & & 11 & \\ & 6 & \cancel{1} & 15 \\ & \cancel{7} & \cancel{2} & \cancel{5} \\ - & 3 & 4 & 9 \\ \hline & 3 & 7 & 6 \end{array}$$

Regroup 2 tens 5 ones as 1 ten 15 ones. Subtract the ones.

↓

Regroup 7 hundreds 1 ten as 6 hundreds 11 tens. Subtract the tens.

↓

Subtract the hundreds.

Share and Show

MATH BOARD

Solve. Write the difference.

1.

$$\begin{array}{rccc} & 4 & 2 & 1 \\ - & 1 & 3 & 8 \\ \hline \end{array}$$

2.

$$\begin{array}{rccc} & 2 & 7 & 4 \\ - & 1 & 8 & 2 \\ \hline \end{array}$$

3.

$$\begin{array}{rccc} & 5 & 4 & 6 \\ - & 2 & 6 & 7 \\ \hline \end{array}$$

4.

$$\begin{array}{rccc} & 8 & 5 & 9 \\ - & & 5 & 7 \\ \hline \end{array}$$

✓ **5.**

$$\begin{array}{rccc} & 7 & 4 & 7 \\ - & 1 & 5 & 9 \\ \hline \end{array}$$

✓ **6.**

$$\begin{array}{rccc} & 9 & 3 & 8 \\ - & 3 & 7 & 0 \\ \hline \end{array}$$

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Name _____

On Your Own

Solve. Write the difference.

7.

$$\begin{array}{r} 342 \\ -\ 138 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 463 \\ -\ 281 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 855 \\ -\ 497 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 657 \\ -\ 384 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 521 \\ -\ 146 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 758 \\ -\ 537 \\ \hline \end{array}$$

13.

$$\begin{array}{r} 542 \\ -\ 168 \\ \hline \end{array}$$

14.

$$\begin{array}{r} 823 \\ -\ 673 \\ \hline \end{array}$$

15.

$$\begin{array}{r} 947 \\ -\ 579 \\ \hline \end{array}$$

16. THINK SMARTER Alex wrote these problems. What are the missing digits?

$$\begin{array}{r} {\scriptstyle 4}\ {\scriptstyle 15} \\ 9\ \square\ \square \\ -\ 6\ 2\ 8 \\ \hline 3\ 2\ 7 \end{array}$$

$$\begin{array}{r} {\scriptstyle 7}\ {\scriptstyle 13} \\ \square\ \square\ 7 \\ -\ 1\ 5\ \square \\ \hline 6\ 8\ 1 \end{array}$$

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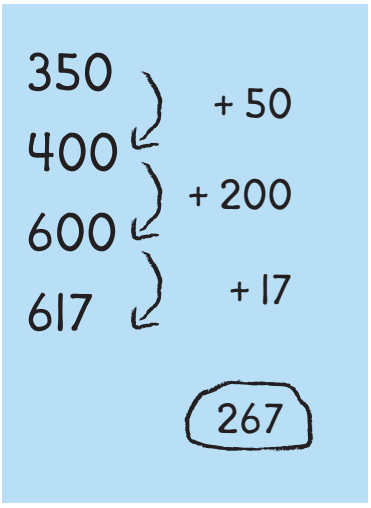
Problem Solving • Applications (Real World) WRITE Math

17. GO DEEPER This is how Walter found the difference for 617 − 350.



Find the difference for 843 − 270 using Walter's way.

18. MATHEMATICAL PRACTICE 1 **Analyze** There are 471 children at Caleb's school. 256 children ride buses to get to school.

How many children do not ride buses to get to school?

_____ children

19. THINK SMARTER Mrs. Herrell had 427 pinecones. She gave 249 pinecones to her children.

How many pinecones does she still have?

_____ pinecones

TAKE HOME ACTIVITY • Ask your child to find the difference when subtracting 182 from 477.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Regrouping with Zeros

Essential Question How do you regroup when there are zeros in the number you start with?

Number and Operations in Base Ten—2.NBT.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Real World

Draw or write to show how you solved the problem.

FOR THE TEACHER • Read the following problem and have children solve. Mr. Sanchez made 403 cookies. He sold 159 cookies. How many cookies does Mr. Sanchez have now? Encourage children to discuss and show different ways to solve the problem.

Math Talk Mathematical Practices

Describe another way that you could solve the problem.

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Model and Draw

Ms. Dean has a book with 504 pages in it. She has read 178 pages so far. How many more pages does she still have to read?

$$\begin{array}{r} 5\ 0\ 4 \\ -\ 1\ 7\ 8 \\ \hline \end{array}$$

Step 1 There are not enough ones to subtract from.

Since there are 0 tens, regroup 5 hundreds as 4 hundreds 10 tens.

$$\begin{array}{r} {\scriptstyle 4}\ {\scriptstyle 10} \\ 5\ 0\ 4 \\ -\ 1\ 7\ 8 \\ \hline \end{array}$$

Step 2 Next, regroup 10 tens 4 ones as 9 tens 14 ones.

Now there are enough ones to subtract from.

$14 - 8 = 6$

$$\begin{array}{r} {\scriptstyle 9} \\ 4\ 10\ 14 \\ 5\ 0\ 4 \\ -\ 1\ 7\ 8 \\ \hline \quad\quad 6 \end{array}$$

Step 3 Subtract the tens.

$9 - 7 = 2$

Subtract the hundreds.

$4 - 1 = 3$

$$\begin{array}{r} {\scriptstyle 9} \\ 4\ 10\ 14 \\ 5\ 0\ 4 \\ -\ 1\ 7\ 8 \\ \hline 3\ 2\ 6 \end{array}$$

Share and Show

MATH BOARD

Solve. Write the difference.

1.

$$\begin{array}{r} 3\ 0\ 8 \\ -\ 2\ 5\ 9 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 7\ 5\ 5 \\ -\ 4\ 3\ 8 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 8\ 0\ 1 \\ -\ 3\ 7\ 5 \\ \hline \end{array}$$

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Name _____

On Your Own

Solve. Write the difference.

4.

$$\begin{array}{r} 563 \\ -\ 182 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 904 \\ -\ 568 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 705 \\ -\ 231 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 603 \\ -\ 328 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 442 \\ -\ 238 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 901 \\ -\ 675 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 702 \\ -\ 426 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 684 \\ -\ 219 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 479 \\ -\ 137 \\ \hline \end{array}$$

13. THINK SMARTER Miguel has 125 more baseball cards than Chad. Miguel has 405 baseball cards. How many baseball cards does Chad have?

_____ baseball cards

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Problem Solving • Applications (Real World) WRITE Math

14. MATHEMATICAL PRACTICE 1 **Analyze** Claire has 250 pennies. Some are in a box and some are in her bank. There are more than 100 pennies in each place. How many pennies could be in each place?

_____ pennies in a box

_____ pennies in her bank

Explain how you solved the problem.

_____

_____

_____

_____

15. THINK SMARTER There are 404 people at the baseball game. 273 people are fans of the blue team. The rest are fans of the red team. How many people are fans of the red team?

Does the sentence describe how to find the answer? Choose Yes or No.

Regroup 1 ten as 14 ones.	○ Yes	○ No
Regroup 1 hundred as 10 tens.	○ Yes	○ No
Subtract 3 ones from 4 ones.	○ Yes	○ No
Subtract 2 hundreds from 4 hundreds.	○ Yes	○ No

There are _____ fans of the red team.

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Estimation in 3-Digit Subtraction

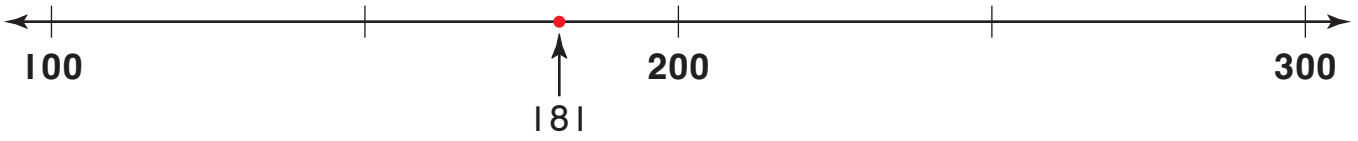
Essential Question How do you make reasonable estimates when solving problems?

Number and Operations in Base Ten—2.NBT.7.1

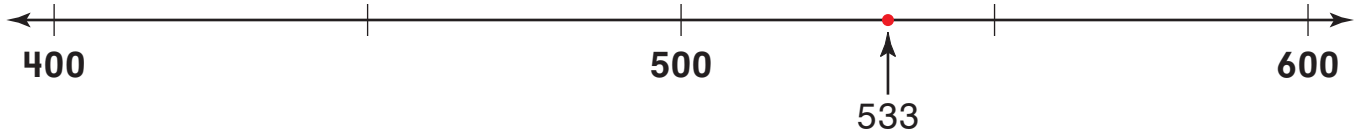
MATHEMATICAL PRACTICES
MP.8

Listen and Draw

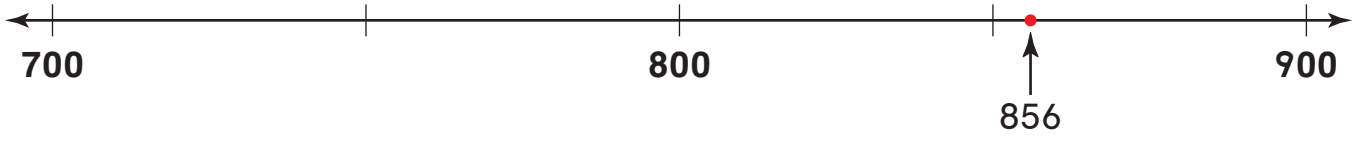
Which is the nearest hundred to the number?



_____ is the nearest hundred to 181.



_____ is the nearest hundred to 533.



_____ is the nearest hundred to 856.

FOR THE TEACHER • For each number line, direct children's attention to the point on the number line with the arrow and number label below it. Have children then determine which hundreds number is closest to that point

Math Talk **Mathematical Practices**

How can the halfway marks between the hundreds numbers help? **Explain.**

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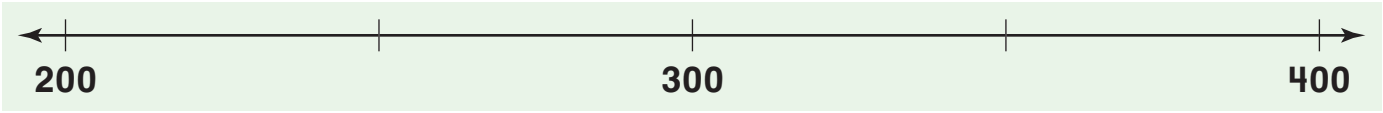
Model and Draw

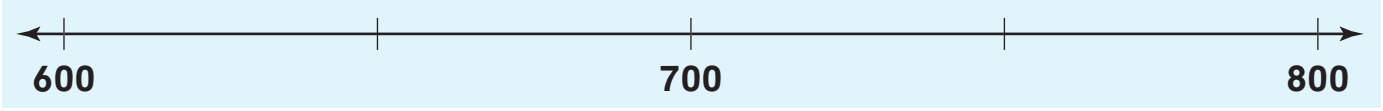
Use the number lines to find the nearest hundred for each number.

Use the nearest hundreds numbers to estimate the difference.

$$\begin{array}{r} 725 \\ -\ 287 \\ \hline \end{array} \rightarrow \begin{array}{r} 700 \\ -\ 300 \\ \hline 400 \end{array}$$

An estimate for the difference is _____.





Share and Show

Find the nearest hundred for each number. Then estimate the difference.

1. $\begin{array}{r} 672 \\ -\ 309 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$

An estimate for the difference is _____.

2. $\begin{array}{r} 765 \\ -\ 288 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$

An estimate for the difference is _____.

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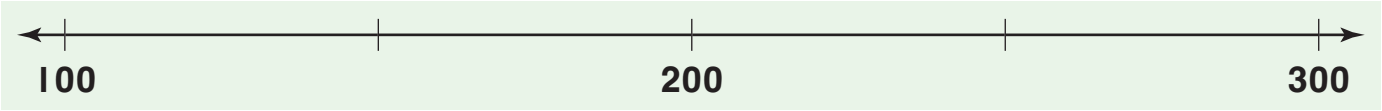
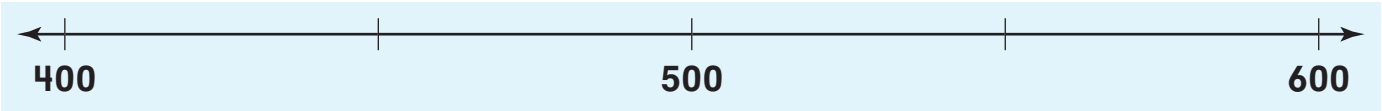
Name _____

On Your Own





Find the nearest hundred for each number. Then estimate the difference.

3.

$$\begin{array}{r} 518 \\ -\ 173 \\ \hline \end{array} \quad \rightarrow \quad - \_\_\_\_\_$$

An estimate for the difference is _____.

4. THINK SMARTER There are 574 people at the game. There are 119 people at the park. Describe how you could estimate how many more people are at the game than the park.

_____

_____

_____

5. MATHEMATICAL PRACTICE 2 **Use Reasoning**

At the store, there are 388 apples and 124 plums. Estimate how many more apples than plums are at the store.

about _____ more apples

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Problem Solving • Applications

WRITE Math

6. MATHEMATICAL PRACTICE 6 **Explain** Monica used 800 − 200 to estimate the difference for a subtraction problem. Circle the problem that you think she was estimating the difference for.

951 −126	814 −227	735 −104

Explain your choice.

_____

_____

_____

7. THINK SMARTER Lin has more beads than Ben. Lin uses 600 − 500 to estimate how many more beads.

Fill in the bubble next to all the problems she may have been estimating for.

○ 698 −530	○ 602 −495	○ 590 −511	○ 630 −599

TAKE HOME ACTIVITY • Have your child describe how he or she used estimation in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 6 Review/Test

1. Mr. Kent's art class used 234 craft sticks. Ms. Reed's art class used 358 craft sticks. How many craft sticks did the two classes use?

_____ craft sticks

2. At the library, there are 668 books and magazines. There are 565 books at the library. How many magazines are there?

Circle the number that makes the sentence true.

There are [13 / 103 / 1,233] magazines.

3. There are 176 girls and 241 boys at school. How many children are at school?

$$\begin{array}{r} 176 \longrightarrow 100 + 70 + 6 \\ +\ 241 \longrightarrow \underline{200 + 40 + 1} \end{array}$$

Select one number from each column to solve the problem.

Hundreds	Tens	Ones
○ 2	○ 1	○ 3
○ 3	○ 3	○ 5
○ 4	○ 4	○ 7

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4. Anna wants to add 246 and 132.

Help Anna solve this problem. Draw quick pictures. Write how many hundreds, tens, and ones in all. Write the number.

Hundreds	Tens	Ones

____ hundreds ____ tens ____ ones

_____

5. Mrs. Preston had 513 leaves. She gave 274 leaves to her students. Draw to show how you found your answer.

How many leaves does she still have?

_____ leaves

6. A farmer has 218 pecan trees and 435 walnut trees. About how many trees does he have in all?

How would you estimate the number of trees? Fill in the bubble next to all the sentences that describe what you would do.

- ○ I would add the hundreds digits.
- ○ I would add 18 + 35.
- ○ I would regroup the ones.
- ○ I would add 200 + 400.

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Name _____

7. Amy has 408 beads. She gives 322 beads to her sister. How many beads does Amy have now?

Does the sentence describe how to find the answer? Choose Yes or No.

Regroup 1 ten as 18 ones.	○ Yes	○ No
Regroup 1 hundred as 10 tens.	○ Yes	○ No
Subtract 2 tens from 10 tens.	○ Yes	○ No

Amy has _____ beads.

8. Raul used this method to find the sum 427 + 316.

$$\begin{array}{r} 427 \\ +\ 316 \\ \hline 700 \\ 30 \\ +\ 13 \\ \hline 743 \end{array}$$

Use Raul's method to find this sum.

$$\begin{array}{r} 229 \\ +\ 313 \\ \hline \end{array}$$

Describe how Raul solves addition problems.

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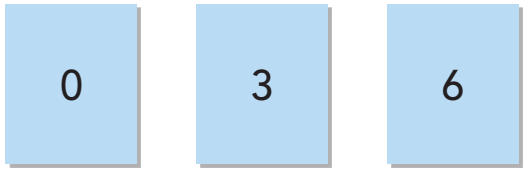
9. Sally scores more points in a game than Ty. Sally uses 900 − 500 to estimate how many more points.

Fill in the bubble next to all the problems she may have been estimating for.

○ 892 − 502	○ 794 − 499	○ 922 − 598	○ 905 − 510

10. Use the numbers on the tiles to solve the problem.



$$\begin{array}{r} 2\ 5\ 7 \\ +\ \square\ 4\ \square \\ \hline 6\ \square\ 3 \end{array}$$

Describe how you solved the problem.

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Making a Kite

by Kathryn Krieger and Christine Ruiz

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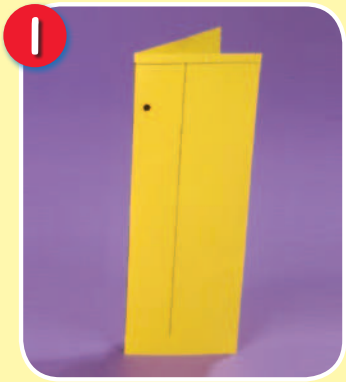
CRITICAL AREA Using standard units of measure

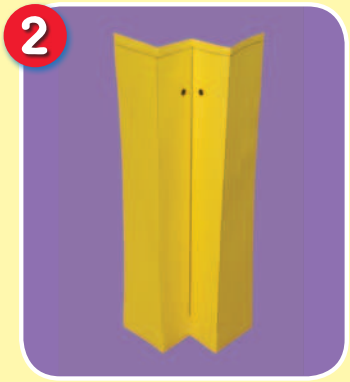
Ellie and Mike get the materials to make a kite. Then they make the body of the kite.

Materials

- paper kite pattern
- tape
- straw
- 10 small paper clips
- scissors
- hole punch
- string
- 3 sheets of paper
- streamer paper



Fold the pattern in half.



Fold along both dashed lines.

Tape on each end.

Science

What are the parts of a kite?

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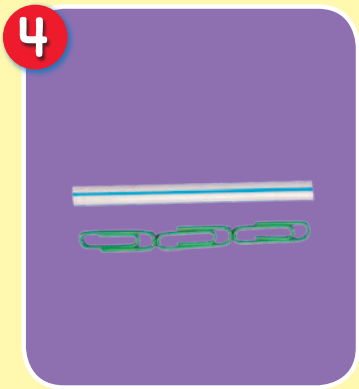
Mike does not want the front of the kite to bend too much. He uses a straw to make the kite stronger.



Measure 3 paper clips long. Cut.

Tape the straw on the line.

Science

Why is a straw used as part of the kite?

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The kite must have a string for Ellie or Mike to hold. If the kite does not have a string, it will blow away. Ellie will tie the string onto the kite.

Punch one hole.

Measure 3 paper-lengths of string. Cut.

Put the string through the hole and tie it.

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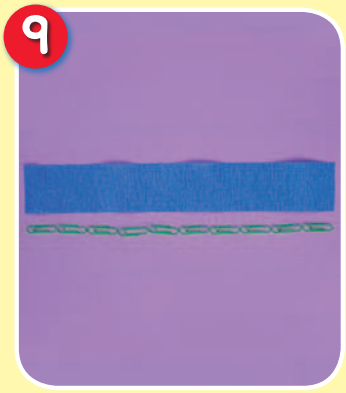
Science

Why is a string needed on a kite?

A tail will help the kite fly straight. Mike measures streamer paper and will tape it to the kite. Then the kite will be finished!

9



Measure 10 paper-clip-lengths of streamer paper. Cut.

10

Tape the streamer to the kite as a tail.

Science

Why is a tail needed on a kite?

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You can make a kite too. Start at the beginning of this story. Follow the steps.

Science

How do all of the parts help the kite fly?

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Name _____

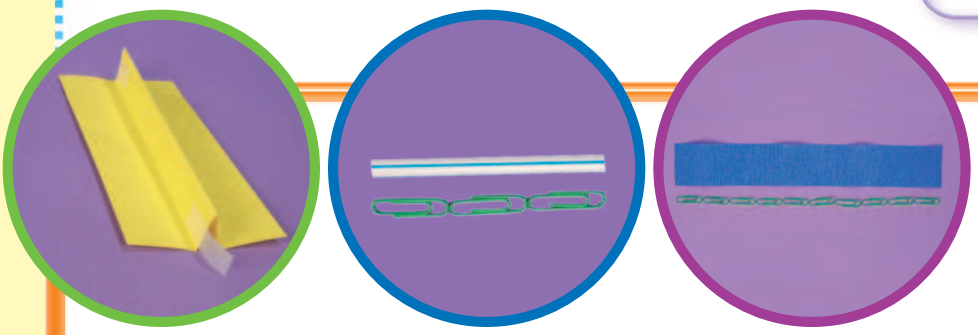
Write About the Story

Draw and write a story about making a kite. Explain how to measure the parts of the kite in your story.

Vocabulary Review

measure

length



WRITE Math

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What is the length?

Estimate the length of each straw. Then measure the length of each straw using small paper clips.

1. Estimate: about _____ paper clips long

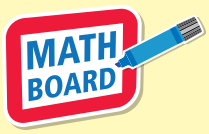
Measure: about _____ paper clips long

2. Estimate: about _____ paper clips long

Measure: about _____ paper clips long

3. Estimate: about _____ paper clips long

Measure: about _____ paper clips long



Look around the classroom. Find other objects to measure. Measure the length of each object using small paper clips.

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Chapter 7

Money and Time

Curious about Math

A sundial shows the time using the position of the sun. It has numbers around it, like a clock face. What numbers are on a clock face?

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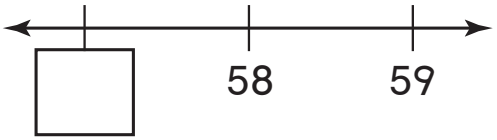
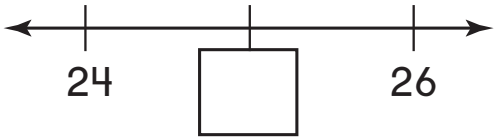
Name _____

Show What You Know

Order Numbers to 100 on a Number Line

Write the number that is just before, between, or just after.

1. 

2. 

Skip Count by Fives and Tens

3. Count by fives. Write how many in all.

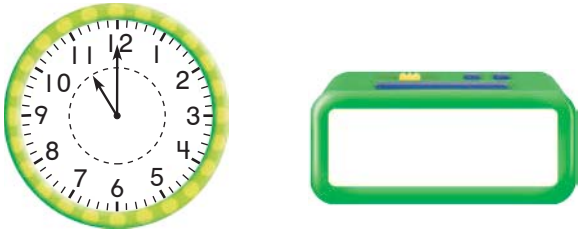
_____ _____ paints in all

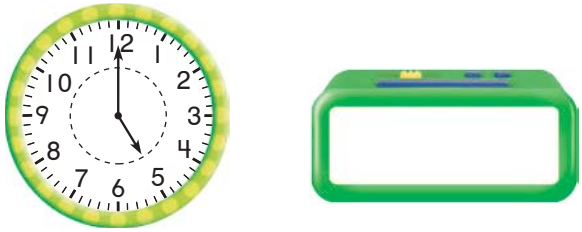
4. Count by tens. Write how many in all.

_____ _____ paints in all

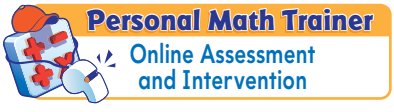
Time to the Hour

Write the time shown on the clock.

5. 

6. 

This page checks understanding of important skills needed for success in Chapter 7.



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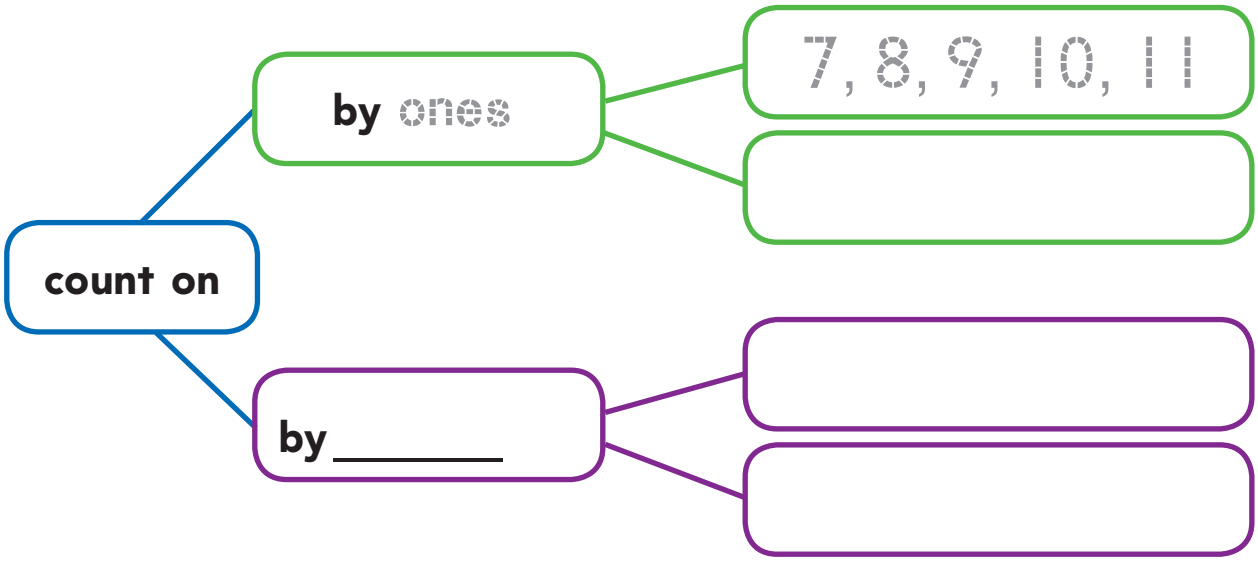
Name _____

Vocabulary Builder

Review Words
count
pattern
count on

Visualize It

Fill in the graphic organizer.
Show ways to **count on**.



Understand Vocabulary

Write the missing numbers in each counting **pattern.**

1. **Count** by ones. 40, ____, ____, ____, 44, ____, 46, ____

2. **Count** by fives. 10, 15, ____, ____, ____, 35, ____, ____

3. **Count** by tens. 20, ____, ____, 50, ____, ____, 80, ____

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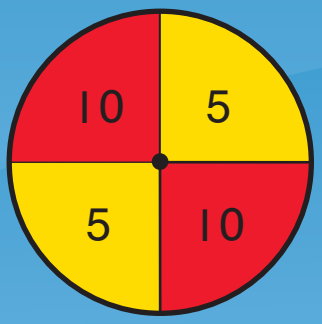
Game

5 and 10 Count

Materials • 1 • 1 •

Play with a partner.

1. Spin the pointer on for your starting number. Put your cube on that number.
2. Spin the pointer. Count on by that number two times.
3. Take turns. The first player to get to 100 wins. Play again.



1	2	3	4	**5**	6	7	8	9	**10**
11	12	13	14	**15**	16	17	18	19	**20**
21	22	23	24	**25**	26	27	28	29	**30**
31	32	33	34	**35**	36	37	38	39	**40**
41	42	43	44	**45**	46	47	48	49	**50**
51	52	53	54	**55**	56	57	58	59	**60**
61	62	63	64	**65**	66	67	68	69	**70**
71	72	73	74	**75**	76	77	78	79	**80**
81	82	83	84	**85**	86	87	88	89	**90**
91	92	93	94	**95**	96	97	98	99	**100**

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Name _____

Dimes, Nickels, and Pennies

Essential Question How do you find the total value of a group of dimes, nickels, and pennies?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES

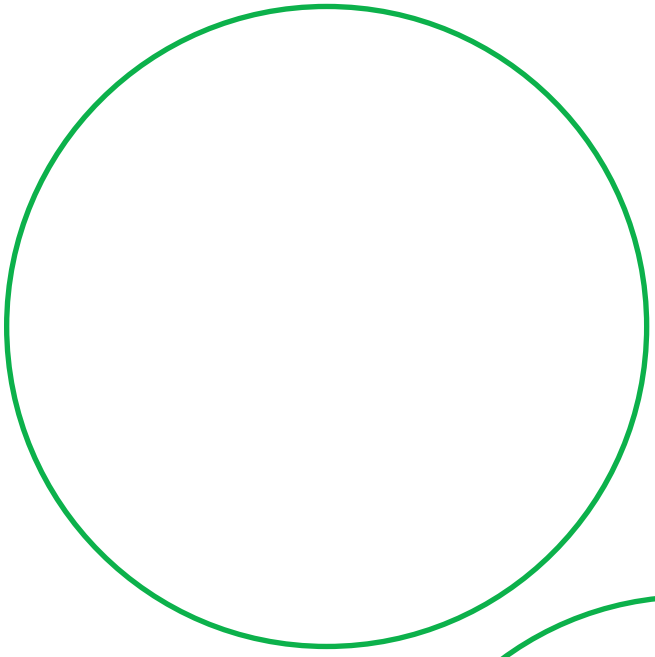
MP.6, MP.7

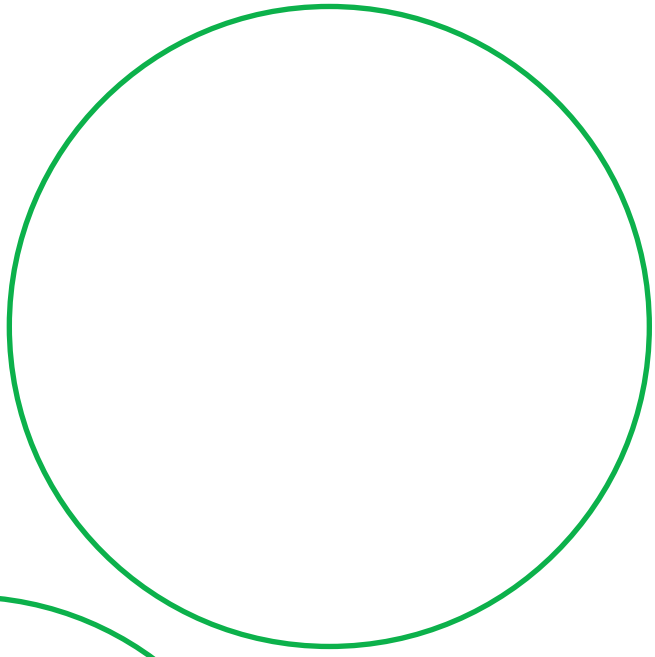
Listen and Draw

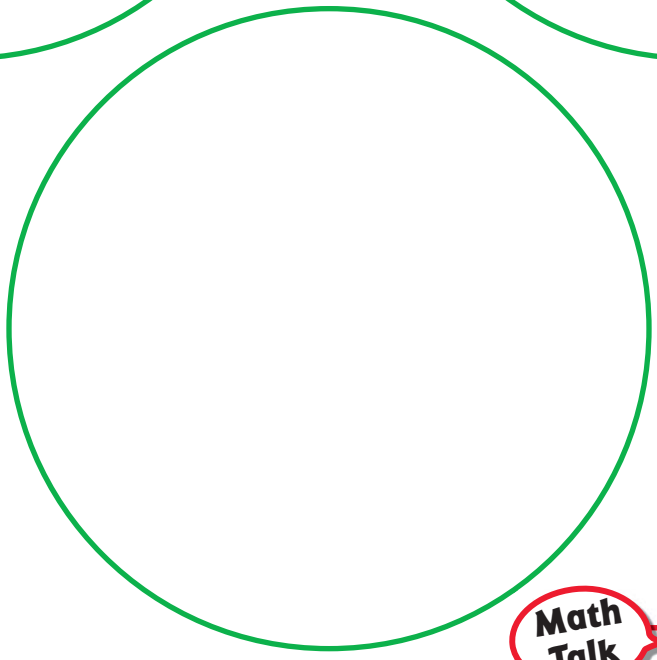
Real World

Hands On

Sort the coins. Then draw the coins.







FOR THE TEACHER • Distribute play coins of dimes, nickels, and pennies and discuss their values. Have children sort the coins and draw them inside the three circles. Have children label the drawings with the numbers *1*, *5*, or *10* to indicate the cent value of each coin drawn.

Math Talk **Mathematical Practices**

A nickel has the same value as how many pennies? **Explain.**

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Model and Draw

10 cents
10¢

dime

5 cents
5¢

nickel

1 cent
1¢

penny

¢ is the **cent sign**.

Count dimes by tens.

10¢, 20¢, 30¢

Count nickels by fives.

5¢, 10¢, 15¢

Count by tens. Count by fives. Count by ones.

10¢, 20¢, 25¢, 30¢, 31¢, 32¢

32¢

total value

Share and Show

MATH BOARD

Count on to find the total value.

1.

total value

2.

total value

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Name _____

On Your Own

Remember:
Write the cent sign after the number.

Count on to find the total value.

3.

_____ total value

4.

_____ total value

5.

total value

6.

total value

7. THINK SMARTER Maggie had 5 nickels. She gave 2 nickels to her sister. What is the total value of the nickels that Maggie has now?

_____

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

8. MATHEMATICAL PRACTICE 1 **Analyze** Jackson has 4 pennies and 3 dimes. How much money does Jackson have?

_____

9. MATHEMATICAL PRACTICE 4 **Use Models** Draw two ways to show 25¢. You can use dimes, nickels, and pennies.

10. THINK SMARTER Sue has 40¢. Circle coins to show this amount.

TAKE HOME ACTIVITY • Draw pictures of five coins, using dimes, nickels, and pennies. Ask your child to find the total value.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Quarters

Essential Question How do you find the total value of a group of coins?

Measurement and Data — 2.MD.8

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Hands On

Sort the coins. Then draw the coins.

Math Talk **Mathematical Practices**

Describe how the value of a quarter is greater than the value of a dime.

FOR THE TEACHER • Distribute play coins of quarters, dimes, and nickels and discuss their values. Have children sort the coins and draw them inside the three boxes. Have them label the drawings with *5¢*, *10¢*, or *25¢*.

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Model and Draw

A **quarter** has a value of 25 cents.

25¢

Count by twenty-fives. Count by tens. Count by ones.

25¢, 50¢, 60¢, 70¢, 71¢, 72¢

72¢

total value

Share and Show

MATH BOARD

Remember: ¢ is the cent sign.

Count on to find the total value.

1.

total value

2.

total value

3.

total value

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Name _____

On Your Own

Count on to find the total value.

4.

_____ total value

5.

_____ total value

6.

total value

7.

total value

Draw and label a coin to solve.

8. THINK SMARTER Ed's coin has the same value as a group of 5 pennies and 4 nickels. What is his coin?

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Problem Solving • Applications Real World

WRITE Math

MATHEMATICAL PRACTICE 6

Make Connections

Read the clue. Choose the name of a coin from the box to answer the question.

nickel	dime
quarter	penny

9. I have the same value as 5 pennies.

What coin am I?

_____

10. I have the same value as 25 pennies.

What coin am I?

_____

11. I have the same value as 2 nickels.

What coin am I?

_____

12. I have the same value as a group of 5 nickels.

What coin am I?

_____

13. THINK SMARTER Tom gives these coins to his brother.

Circle the value of the coins to complete the sentence.

Tom gives his brother

25¢
65¢
80¢

.

TAKE HOME ACTIVITY • Have your child draw two quarters, two dimes, and two nickels, and then find the total value.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Count Collections

Essential Question How do you order coins to help find the total value of a group of coins?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES
MP.4, MP.8

Listen and Draw

Real World

Hands On

Line up the coins from greatest value to least value. Then draw the coins in that order.

greatest least

greatest least

Math Talk **Mathematical Practices**

Describe how the values of the different kinds of coins compare.

FOR THE TEACHER • Give each child a mixture of four play coins. Have children order their coins and then draw them. Have children trade sets of coins and repeat.

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Model and Draw

Order the coins from greatest value to least value.
Then find the total value.

25¢ 25¢ 10¢ 1¢ 1¢

Count the cents.
25, 50, 60, 61, 62

_____
total value

Share and Show

MATH BOARD

Remember: Write the cent sign.

Draw and label the coins from greatest to least value. Find the total value.

1.

_____

2.

_____

3.

_____

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Name _____

On Your Own

Draw and label the coins from greatest to least value. Find the total value.

4.

_____

5.

_____

6.

_____

7.

_____

8.

_____

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

9. THINK SMARTER Paulo had these coins.

He spent 1 quarter. How much money does he have now?

_____

10. Rachel has 2 quarters, 3 dimes, and 1 nickel in her bank. How much money is in Rachel's bank?

_____

11. GO DEEPER Blake has only nickels and dimes. He has twice as many nickels as dimes. The total value of his coins is 60¢. What coins does Blake have?

_____ nickels _____ dimes

12. THINK SMARTER Malik has these coins in his pocket. What is the total value of the coins?

_____

TAKE HOME ACTIVITY • Have your child draw and label coins with a total value of 32¢.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Show Amounts in Two Ways

Essential Question How do you choose coins to show a money amount in different ways?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES
MP.4, MP.8

Listen and Draw

Real World

Hands On

Show the amount with coins. Draw the coins. Write the amount.

Math Talk **Mathematical Practices**

Can you show 10¢ with 3 coins? **Explain** how you know.

FOR THE TEACHER • Distribute play coins. Tell children to use coins to show 27 cents. Then have them draw the coins and write the amount. Repeat the activity for 51 cents.

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Model and Draw

Here are two ways to show 30¢.

Look at Matthew's way. If you trade 2 dimes and 1 nickel for 1 quarter, the coins will show Alicia's way.

Count the cents. Start with the dimes.

Count the cents. Start with the quarter.

Matthew

30¢

Alicia

30¢

Share and Show

MATH BOARD

Use coins. Show the amount in two ways. Draw and label the coins.

1.

61¢

2.

36¢

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Name _____

On Your Own

Use coins. Show the amount in two ways. Draw and label the coins.

3. 55¢

4. 90¢

5. 75¢

6. THINK SMARTER Teresa has 42¢. She has no dimes. Draw to show what coins she might have.

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 4 **Model Mathematics**

Use coins to solve.

7. Lee buys a pen for 50¢. Draw coins to show two different ways to pay 50¢.

8. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Delia used 4 coins to buy a book for 40¢. Draw coins to show two ways to pay 40¢ with 4 coins.

9. THINK SMARTER Fill in the bubble next to all the groups of coins with a total value of 30¢.

- ○ 6 dimes
- ○ 1 quarter and 1 nickel
- ○ 2 nickels and 2 dimes
- ○ 3 nickels and 5 pennies

TAKE HOME ACTIVITY • With your child, take turns drawing different collections of coins to show 57¢.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

One Dollar

Essential Question How can you show the value of one dollar with coins?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw Real World

Draw the coins. Write the total value.

_____

_____

FOR THE TEACHER • In the first box, have children draw eight nickels and then count to find the total value. In the second box, have children draw eight dimes and then count to find the total value.

Math Talk **Mathematical Practices**

How many pennies have the same value as 80¢? **Explain.**

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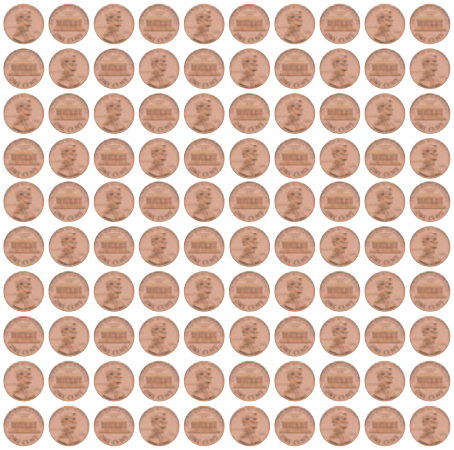
Model and Draw

One **dollar** has the same value as 100 cents.



$1.00 = 100¢

dollar sign — decimal point

The decimal point separates the dollars from the cents.

Share and Show

MATH BOARD

Count 100 cents for one dollar.

Draw the coins to show $1.00. Write the total value.

1. nickels

$1.00

2. quarters

3. dimes

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Name _____

On Your Own

Circle coins to make $1.00.
Cross out the coins you do not use.

4.

5.

6.

7. THINK SMARTER Sara has these coins.
Draw more coins to show $1.00.

TAKE HOME ACTIVITY • Have your child draw a group of coins to show $1.00.

FOR MORE PRACTICE:
Standards Practice Book

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Count on to find the total value. (2.MD.8)

1.

total value

2.

total value

Use coins. Show the amount in two ways.
Draw and label the coins. (2.MD.8)

3. 31¢

4. THINK SMARTER Mary used these coins to buy a folder. What is the total value of these coins? (2.MD.8)

total value

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Name _____

Amounts Greater Than $1

Essential Question How do you show money amounts greater than one dollar?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw

Real World

Draw and label the coins.
Write the total value.

_____
total value

Math Talk **Mathematical Practices**

Explain how you found the total value of the coins in the coin bank.

FOR THE TEACHER • Read the following problem: Dominic has 1 quarter, 2 dimes, 3 nickels, and 1 penny in his coin bank. How much money is in Dominic's bank? Have children draw and label coins to help them solve the problem.

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Model and Draw

When you write amounts greater than one dollar, use a dollar sign and a decimal point.

$1.00

$1.27

total value

$1.50

total value

Share and Show

MATH BOARD

Circle the money that makes $1.00. Then write the total value of the money shown.

1.

2.

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Name _____

On Your Own

Circle the money that makes $1.00. Then write the total value of the money shown.

3.

_____

4.

_____

5.

_____

6. THINK SMARTER Martin used 3 quarters and 7 dimes to pay for a kite. How much money did he use?

_____

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Problem Solving • Applications (Real World) WRITE Math

7. GO DEEPER Pam has fewer than 9 coins. The coins have a total value of $1.15. What coins could she have?

Draw the coins. Then write a list of her coins.

Personal Math Trainer

8. THINK SMARTER + Jason put this money in his bank.

Circle the amount to complete the sentence.

Jason put a total of [$1.10 / $1.15 / $1.35] in his bank.

TAKE HOME ACTIVITY • With your child, take turns drawing coins or a $1 bill and coins with a total value of $1.23.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Money

Essential Question How does acting it out help when solving problems about money?

Measurement and Data—2.MD.8

MATHEMATICAL PRACTICES
MP.1, MP.4, MP.7

Kendra gave 2 dimes, 2 nickels, 1 quarter, and two $1 bills to her sister. How much money did Kendra give her sister?

Unlock the Problem

Real World

What do I need to find?

how much money Kendra gave her sister

What information do I need to use?

Kendra gave her sister 2 dimes,

Show how to solve the problem.

Draw to show the money that Kendra used.

Kendra gave her sister _____.

HOME CONNECTION • Your child used play money to act out the problem. Representing problems with materials can be a useful strategy for children to use to solve problems.

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Try Another Problem

Use play coins and bills to solve.
Draw to show what you did.

- What do I need to find?
- What information do I need to use?

1. Jacob has two $1 bills, 2 dimes, and 3 pennies in his pocket. How much money does Jacob have in his pocket?

_____

2. Amber used 2 quarters, 1 nickel, 1 dime, and three $1 bills to buy a toy. How much money did Amber use to buy the toy?

_____

Math Talk **Mathematical Practices**

Explain how you found the amount of money in Jacob's pocket.

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Name _____

Share and Show

MATH BOARD

Use play coins and bills to solve.
Draw to show what you did.

3. Val used 3 quarters, 2 nickels, 2 pennies, and one $1 bill to buy a book. How much money did Val use to buy the book? _____

4. Derek has two $1 bills, 2 quarters, and 6 dimes. How much money does he have? _____

5. THINK SMARTER Katy has 3 quarters, 2 nickels, 2 dimes, and 3 pennies. How many more pennies does she need to have $1.10?

_____ more pennies

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Problem Solving • Applications (Real World) WRITE Math

6. MATHEMATICAL PRACTICE 1 **Make Sense of Problems**

Victor has some dollar bills, some quarters, and some nickels. Draw and label dollar bills, quarters, and nickels to show $2.25.

7. THINK SMARTER Ross used 3 quarters, 4 dimes, 3 nickels, and 5 pennies to buy a card. How much money did Ross use to buy the card? Draw to show how you solve the problem.

TAKE HOME ACTIVITY • Ask your child to explain how he or she solved one problem in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Time to the Hour and Half Hour

Essential Question How do you tell time to the hour and half hour on a clock?

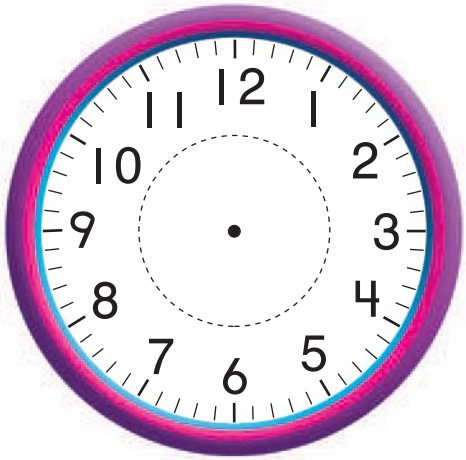
Measurement and Data—2.MD.7

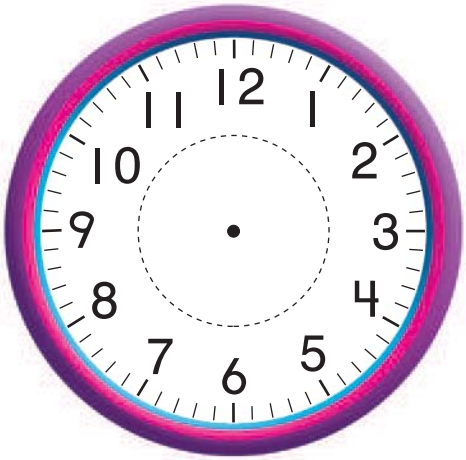
MATHEMATICAL PRACTICES
MP.6, MP.8

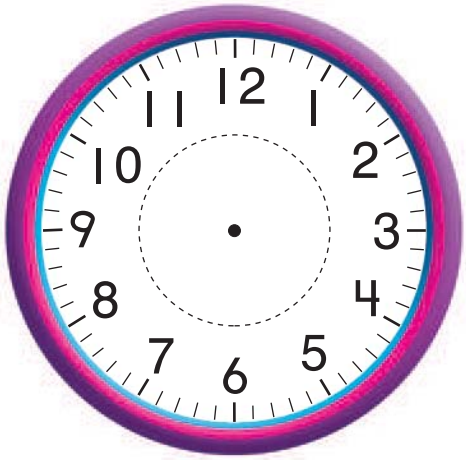
Listen and Draw

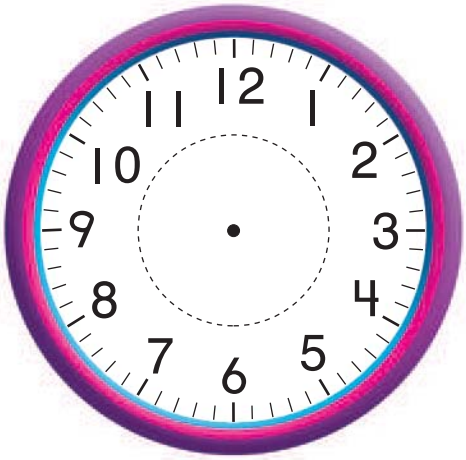
Real World

Draw the hour hand to show each time.









Math Talk **Mathematical Practices**

Describe where the hour hand points to show half past 4:00.

FOR THE TEACHER • Call out times to the hour and to the half hour. Begin with 3:00. Have children draw the hour hand to show the time. Repeat the activity for half past 5:00, 11:00, and half past 8:00.

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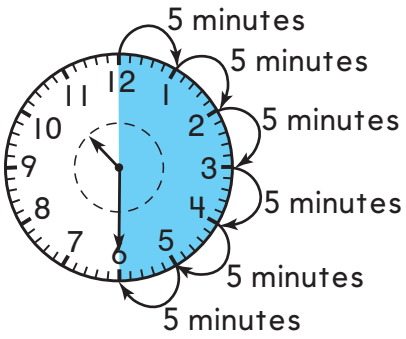
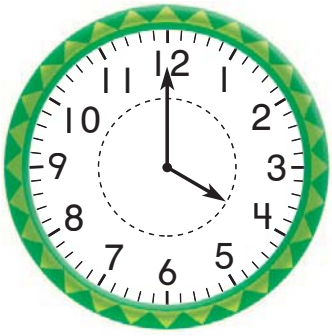
Model and Draw

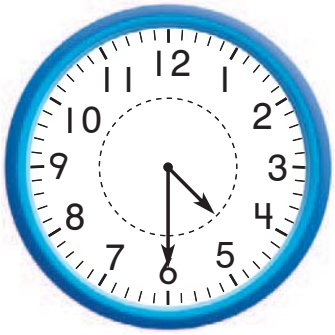
It takes 5 **minutes** for the minute hand to move from one number to the next number on a clock face.



The clock hands on these clocks show 4:00 and 4:30. Write the times below the clocks.



4:00



4:30

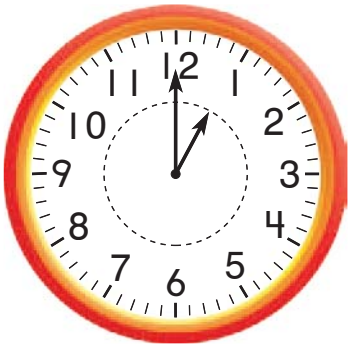
The 30 tells you that the time is 30 minutes after the hour.

Share and Show

MATH BOARD

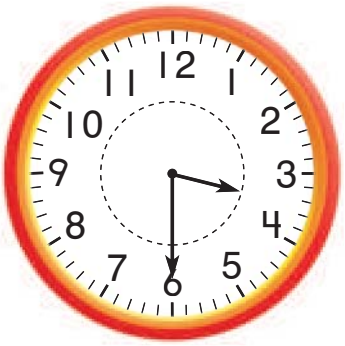
Look at the clock hands. Write the time.

1.



2.

3.



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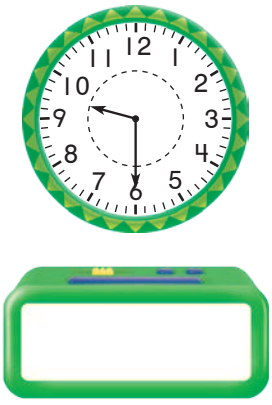
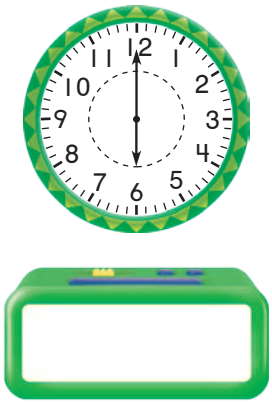
Name _____

On Your Own

Look at the clock hands. Write the time.

4. 

5.

6. 

7.

8.

9.

10. THINK SMARTER Look at the time. Draw the hour hand and the minute hand to show the same time.

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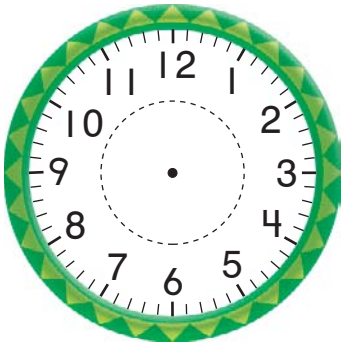
Problem Solving • Applications (Real World) WRITE Math

11. MATHEMATICAL PRACTICE 6 **Make Connections**

Allie eats lunch when the hour hand points halfway between the 11 and the 12, and the minute hand points to the 6. When does Allie eat lunch? Show the time on both clocks.



How do you know what time to write in the digital clock? Explain.

_____

_____

_____

12. THINK SMARTER Match the clocks that show the same time.

TAKE HOME ACTIVITY • Have your child describe what he or she knows about a clockface.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Time to 5 Minutes

Essential Question How do you tell and show time to five minutes?

Measurement and Data—2.MD.7

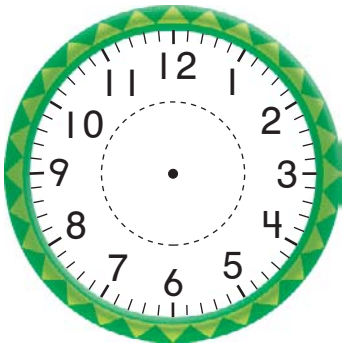
MATHEMATICAL PRACTICES

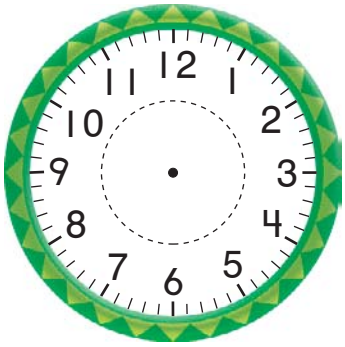
MP.6, MP.8

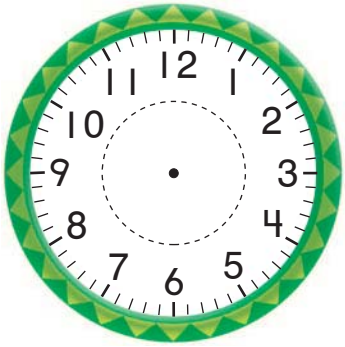
Listen and Draw

Real World

Draw the hour hand and the minute hand to show the time.







FOR THE TEACHER • Read the following story and have children draw the hour and minute hands to show each time. Sofia goes to music at 10:30. She goes to the playground at 11:00. She eats lunch at 11:30. Show the times Sofia does these things.

Math Talk Mathematical Practices

Describe where the minute hand points to show half past the hour.

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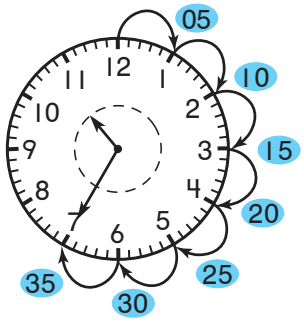
Model and Draw



What does it mean when the minute hand points to the 7?

Count by fives until you reach the 7.

Remember: The minute hand moves from one number to the next in 5 minutes.

The hour hand points between the 10 and the 11. The minute hand points to the 7.

The time is 10:35.

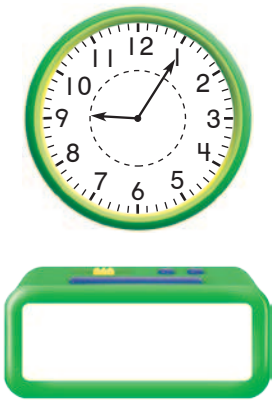
There are 60 minutes in 1 **hour**.

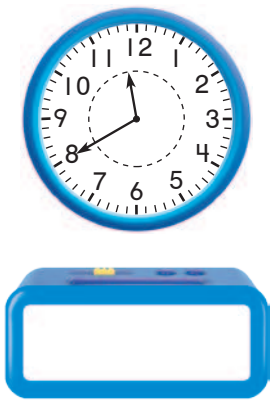
Share and Show

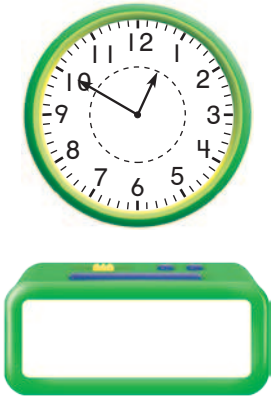
MATH BOARD

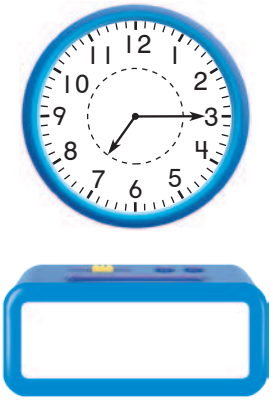
Look at the clock hands. Write the time.

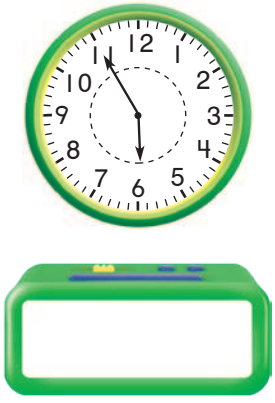
1.

2. 

3. 

4. 

5. 

6. 

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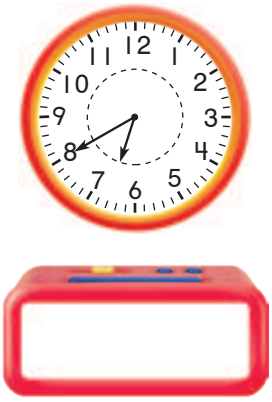
Name _____

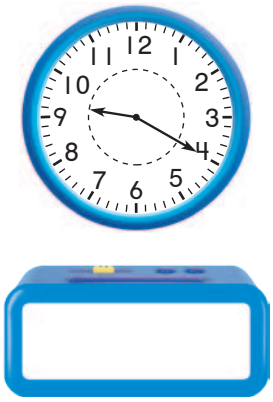
On Your Own

Look at the clock hands. Write the time.

7.

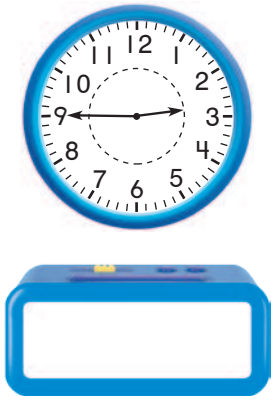


8.



9.

10.



11.

12.

MATHEMATICAL PRACTICE 4 **Use Models** Look at the time. Draw the minute hand to show the same time.

13.

14.

15.

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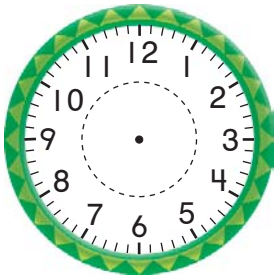
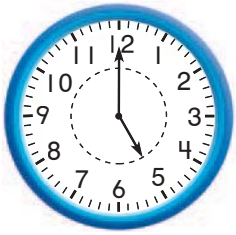
Problem Solving • Applications (Real World) WRITE Math

Draw the clock hands to show the time. Then write the time.

16. THINK SMARTER My hour hand points between the 8 and the 9. In 35 minutes it will be the next hour. What time is it?



17. How many minutes does it take for the minute hand to travel around the clock from the 12 to the 12?



_____

18. THINK SMARTER Angel eats lunch at 12:45. Angel spent 10 minutes eating lunch. Draw the minute hand on the clock to show when Angel finished eating. Write the time.

_____ : _____

TAKE HOME ACTIVITY • Have your child draw a large blank clock face and use two pencils as clock hands to show some different times.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Practice Telling Time

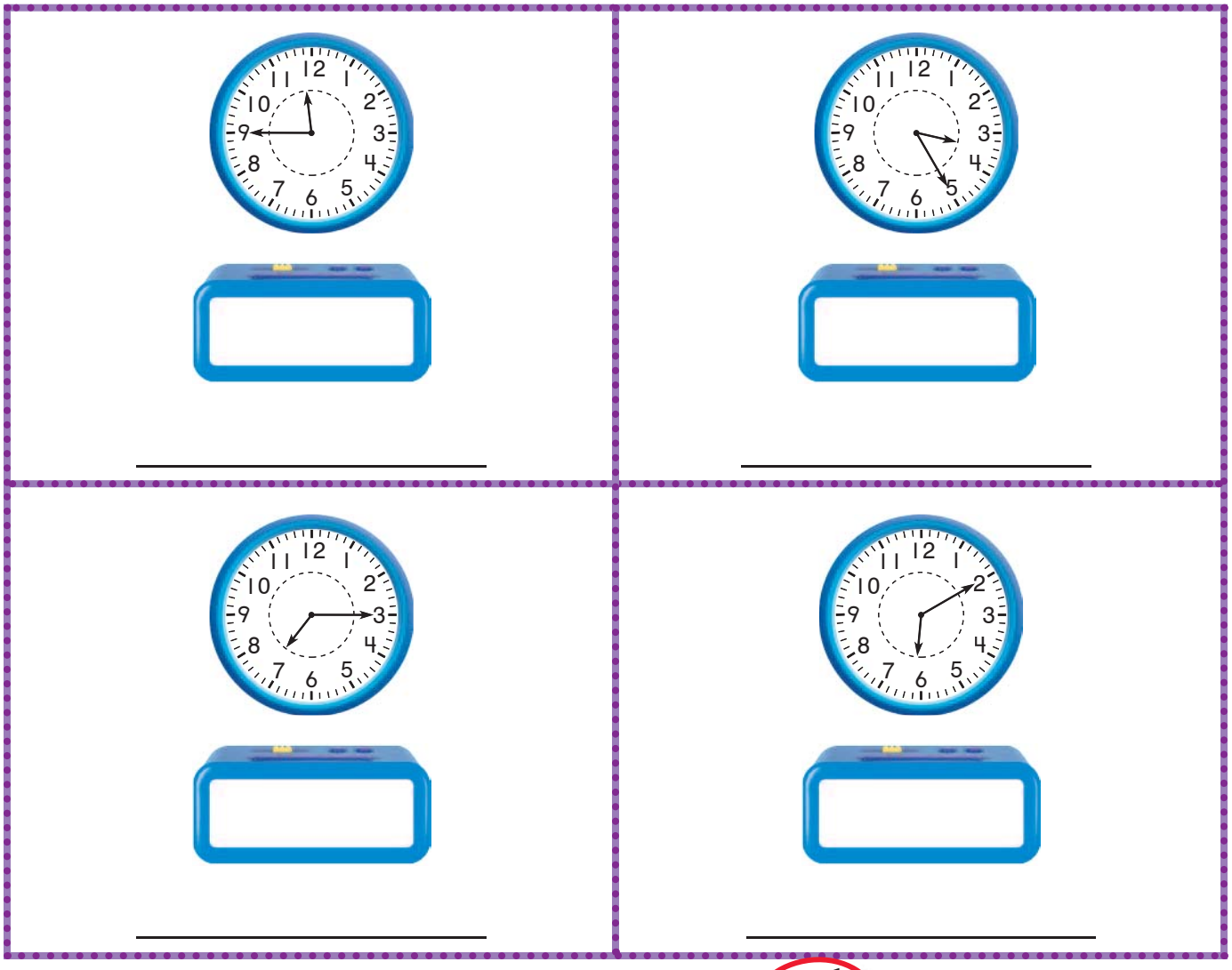
Essential Question What are the different ways you can read the time on a clock?

Measurement and Data—2.MD.7

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Write the times on the digital clocks.
Then label the clocks with the children's names.



Math Talk **Mathematical Practices**

Where would the minute hand point to show 15 minutes after the hour? **Explain.**

FOR THE TEACHER • First have children write the time for each analog clock. Then write *Luke, Beth, Ivy,* and *Rohan* on the board. Tell children to listen for each name to label the different times with. Luke plays football at 3:25. Beth eats lunch at 11:45. Ivy reads a book at 6:10. Rohan eats breakfast at 7:15.

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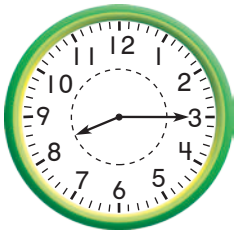
Model and Draw

These are different ways to write and say the time.



15 minutes after 8
quarter past 8

30 minutes after 8
half past 8

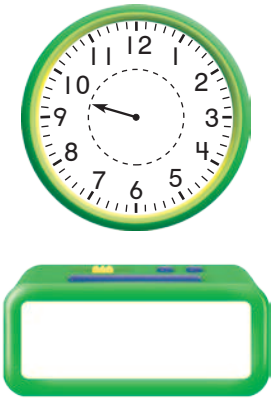
Share and Show

MATH BOARD

Draw the minute hand to show the time. Write the time.

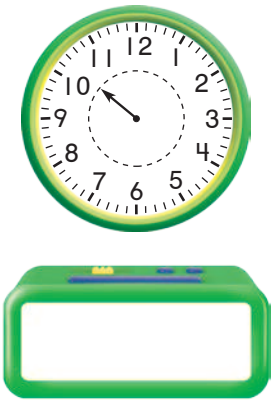
1. 15 minutes after 1

2. half past 9



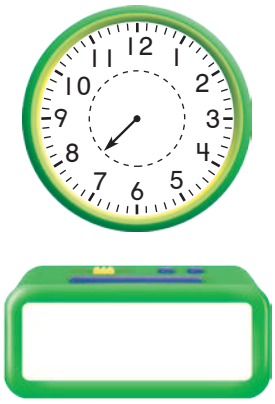
3. quarter past 5

4. quarter past 10



5. 40 minutes after 3

6. half past 7



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Name _____

On Your Own

Draw the minute hand to show the time.
Write the time.

7. 15 minutes after 11

8. quarter past 4

9. 25 minutes after 8

10. 10 minutes after 6

11. half past 2

12. 45 minutes after 3

13. 5 minutes after 7

14. 30 minutes after 12

15. quarter past 10

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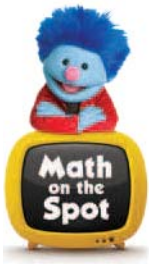
Problem Solving • Applications (Real World) WRITE Math

16. THINK SMARTER Lily eats lunch at quarter past 12. Meg eats lunch at 12:30. Katie eats lunch at 12:15. Which girls eat lunch at the same time?



_____ and _____

17. MATHEMATICAL PRACTICE 6 **Explain** Soccer practice starts at 4:30. Gabe arrives at soccer practice at 4:15. Does he arrive before or after practice starts? Explain.

_____

_____

_____

18. THINK SMARTER What time is shown on the clock? Fill in the bubble next to all the ways to write or say the time.

- ○ 3:25
- ○ quarter past 5
- ○ 5 minutes after 3
- ○ 25 minutes after 3

TAKE HOME ACTIVITY • Name a time to 5 minutes. Ask your child to describe where the clock hands point at this time.

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Name _____

A.M. and P.M.

Essential Question How do you use A.M. and P.M. to describe times?

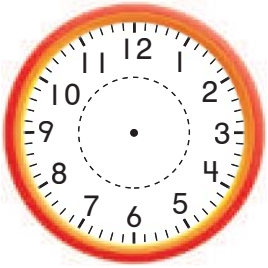
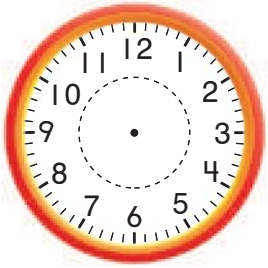
Measurement and Data—2.MD.7

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Draw the clock hands to show each time.
Then write each time.

Morning	Evening
	

Math Talk Mathematical Practices

Describe some activities that you do in both the morning and in the evening.

FOR THE TEACHER • Have children draw a picture and write a label for the picture for an activity they do in the morning and for an activity they do in the evening. Then have them show the time they do each activity on the clocks.

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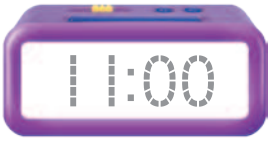
Model and Draw

Noon is 12:00 in the daytime.
Midnight is 12:00 at night.

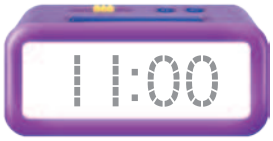
Times after midnight and before noon are written with **a.m.**

11:00 a.m. is in the morning.



Times after noon and before midnight are written with **p.m.**

11:00 p.m. is in the evening.

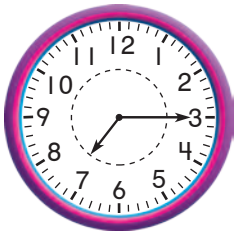


Share and Show

MATH BOARD

Write the time. Then circle **a.m.** or **p.m.**

1. eat breakfast



a.m.

p.m.

2. go to art class

a.m.

p.m.

3. do homework

a.m.

p.m.

4. arrive at school

a.m.

p.m.

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Name _____

On Your Own

Write the time. Then circle **a.m.** or **p.m.**

5. go to the library

a.m.

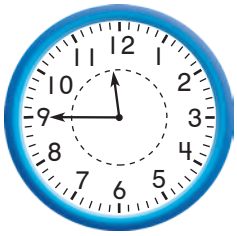
p.m.

6. go to science class

a.m.

p.m.

7. eat lunch



a.m.

p.m.

8. look at the moon

a.m.

p.m.

9. THINK SMARTER Use the times in the list to complete the story.

Don got to school at _____.
His class went to the library at _____. After school, Don read a book at _____.

10:15 a.m.

3:20 p.m.

8:30 a.m.

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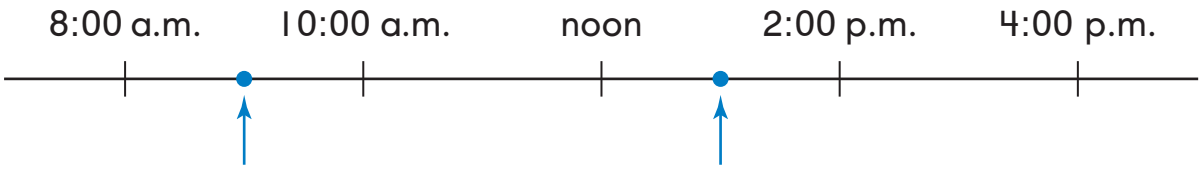
Problem Solving • Applications (Real World) WRITE Math

10. GO DEEPER Some times are shown on this time line. Write a label for each dot that names something you do at school during that part of the day.



_____ _____

At what times would you say the dots are placed on the time line?

_____ and _____

Personal Math Trainer

11. THINK SMARTER+ The clock shows the time Jane goes to recess. Write the time. Then circle a.m. or p.m.

_____ a.m.
p.m.

Recess lasted one hour. Write the time recess was over. Write a.m. or p.m.

_____

TAKE HOME ACTIVITY • Name some activities and times. Have your child say a.m. or p.m. for the times.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Units of Time

Essential Question How are different units of time related?

Measurement and Data — 2.MD.7

MATHEMATICAL PRACTICES
MP.2, MP.6, MP.7

Listen and Draw

Use the calendars to answer the questions.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

How many days are there in March? _____ days

How many Fridays are there in January? _____ Fridays

What day of the week is February 10? _____

What is the date of the third Sunday in March? _____

FOR THE TEACHER • Review the use of calendars with children. Have them answer the questions using the calendars shown on this page.

Math Talk **Mathematical Practices**

Describe what a calendar shows.

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Model and Draw

7 days is the same as 1 **week**.

January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

From January 1 to December 31, there are about 52 weeks. This is 1 **year**.

How many days are in each of these months?

Share and Show

1. Are there more days in July or in November? Explain.

_____

2. In November, there are 4 weeks and _____ days.

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Name _____

On Your Own

Look at the calendars in this lesson to solve.

3. List three months that each have 31 days.

_____

4. List two months that have less than 31 days.

_____

5. In October, there are 4 weeks and _____ days.

Which is the greater amount of time? Circle the correct answer.

6. 1 week or 1 month

7. 1 year or 1 month

8. 1 day or 1 month

9. THINK SMARTER Brenda had a library book for 3 weeks. Ivan had a library book for 17 days. Who had a library book for a greater amount of time? Explain.

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 3

Apply

10. We use the units below to measure how much time passes for different activities and events. List some things that would be measured in each of these units.

- hours _____
- months _____
- weeks _____
- minutes _____

11. THINK SMARTER Is the sentence true? Choose Yes or No.

9 days is more than 1 week.	○ Yes	○ No
10 days is longer than 2 weeks.	○ Yes	○ No
3 weeks is longer than 14 days.	○ Yes	○ No
One month is about 4 weeks long.	○ Yes	○ No
There are about 30 weeks in 1 year.	○ Yes	○ No

TAKE HOME ACTIVITY • Have your child tell you about the different units of time in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 7 Review/Test

1. Andrea pays $2.15 for a jump rope.

   Fill in the bubble next to all the ways that show $2.15.

   - ○ two $1 bills, 1 dime, and 1 nickel
   - ○ one $1 bill, 4 quarters, and 1 dime
   - ○ two $1 bills and 1 quarter
   - ○ one $1 bill, 3 quarters, and 4 dimes

2. The clock shows the time Michael eats breakfast.

   Write the time. Circle a.m. or p.m.

_____ a.m.

_____ p.m

Tell how you knew whether to select a.m. or p.m.

_____

_____

_____

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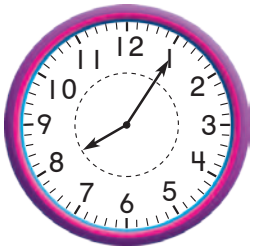
3. Is the sentence true? Choose Yes or No.

There are about 52 weeks in 1 year.	○ Yes	○ No
19 days is longer than 2 weeks.	○ Yes	○ No
3 weeks is less than 20 days.	○ Yes	○ No
9 days is less than 1 week.	○ Yes	○ No

4. Tess gave Raul these coins. Tess says she gave Raul $1.00. Is Tess correct? Explain.

5. Write the time that is shown on this clock.



_____ : _____

6. What time is shown on the clock? Fill in the bubble next to all the ways to write or say the time.

- ○ 4:35
- ○ 7:20
- ○ 35 minutes past 4
- ○ quarter past 4

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Name _____

7. Alicia has this money in her pocket.

Circle the amount to complete the sentence.

Alicia has a total of

$1.40
$1.60
$1.70

in her pocket.

---

8. Kate's father gave her these coins. Write the value of the coins. Explain how you found the the total value.

_____

_____

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9. Write the times the clocks show.

_____ _____ _____

10. Ben has 30¢. Circle coins to show this amount.

11. Mia buys apples that costs 76¢.

Draw and label coins to show a total value of 76¢.

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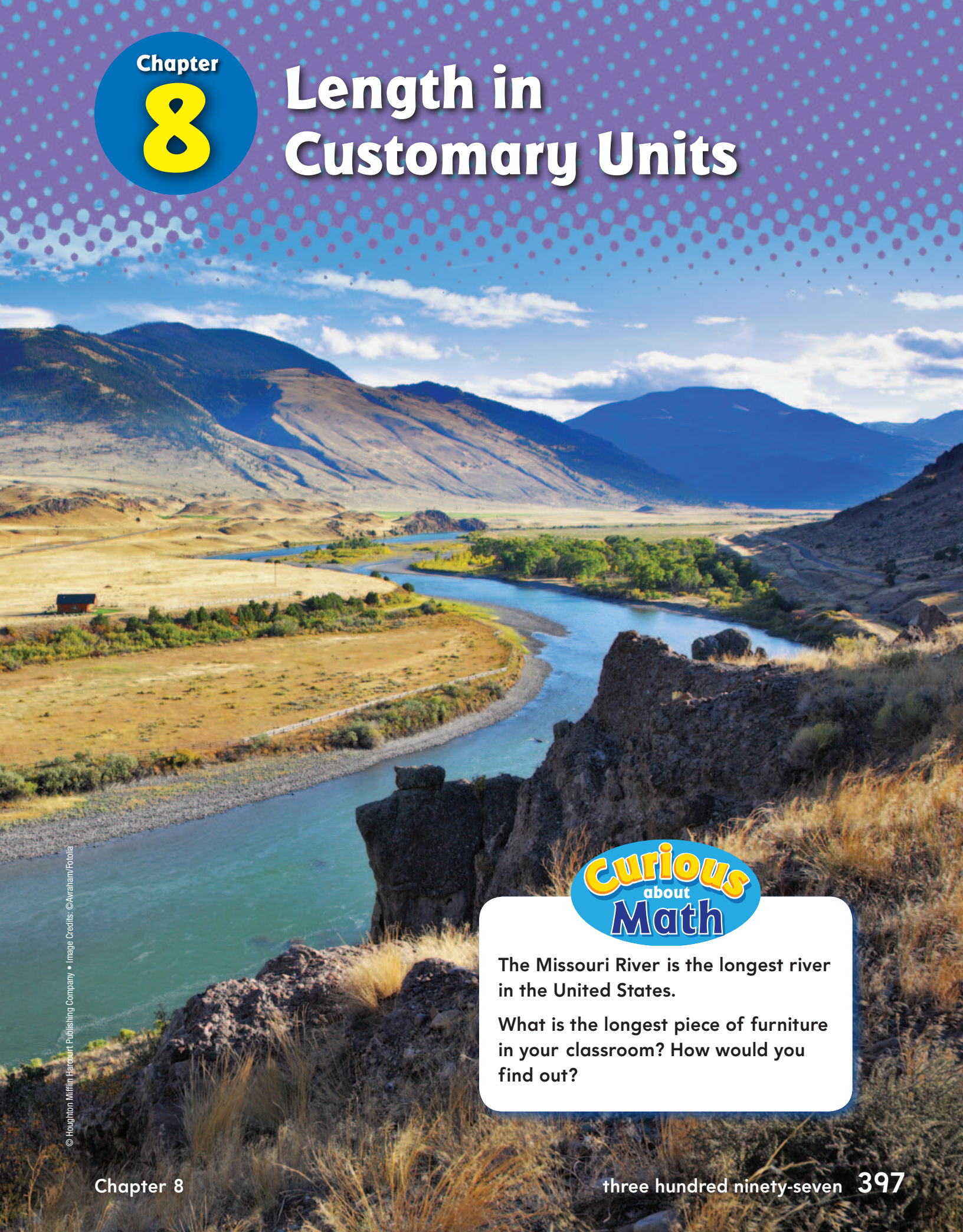
Chapter 8

Length in Customary Units



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Curious about Math

The Missouri River is the longest river in the United States.

What is the longest piece of furniture in your classroom? How would you find out?

Name _____

Show What You Know

Compare Lengths

1. Order the pencils from shortest to longest. Write 1, 2, 3.

_____

_____

_____

Use Nonstandard Units to Measure Length

Use real objects and to measure.

2.

about _____

3.

about _____

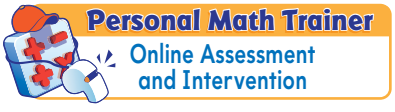
Measure Length Twice: Nonstandard Units

Use first. Then use .
Measure the length of the pencil.

4. about _____

5. about _____

This page checks understanding of important skills needed for success in Chapter 8.



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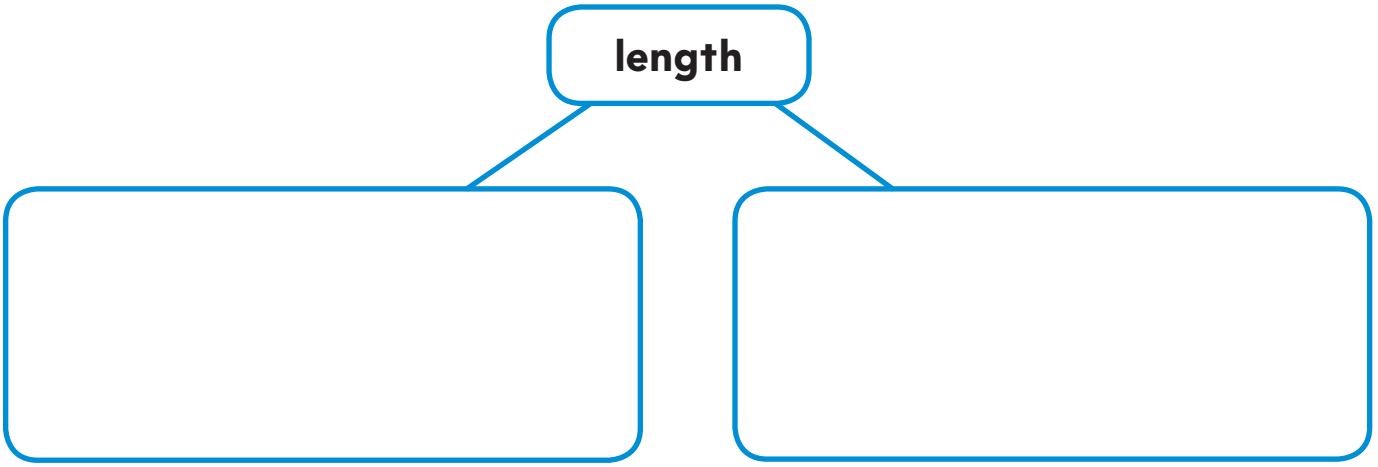
Name _____

Vocabulary Builder

Review Words
length
longer
shorter
longest
shortest

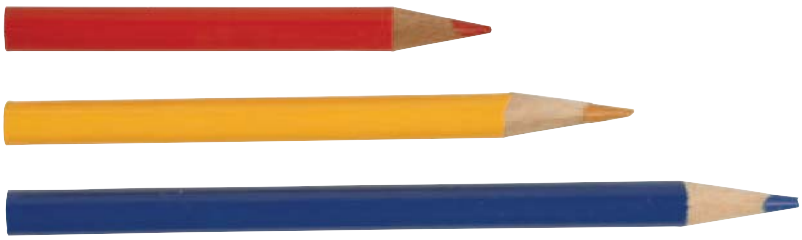
Visualize It

Fill in the graphic organizer to describe the lengths of different objects.



Understand Vocabulary

Use review words. Complete the sentences.



1. The blue pencil is the _____ pencil.

2. The red pencil is the _____ pencil.

3. The red pencil is _____ than the yellow pencil.

4. The blue pencil is _____ than the yellow pencil.

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Game

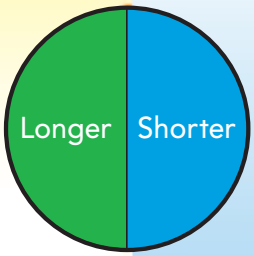
Longer or Shorter?

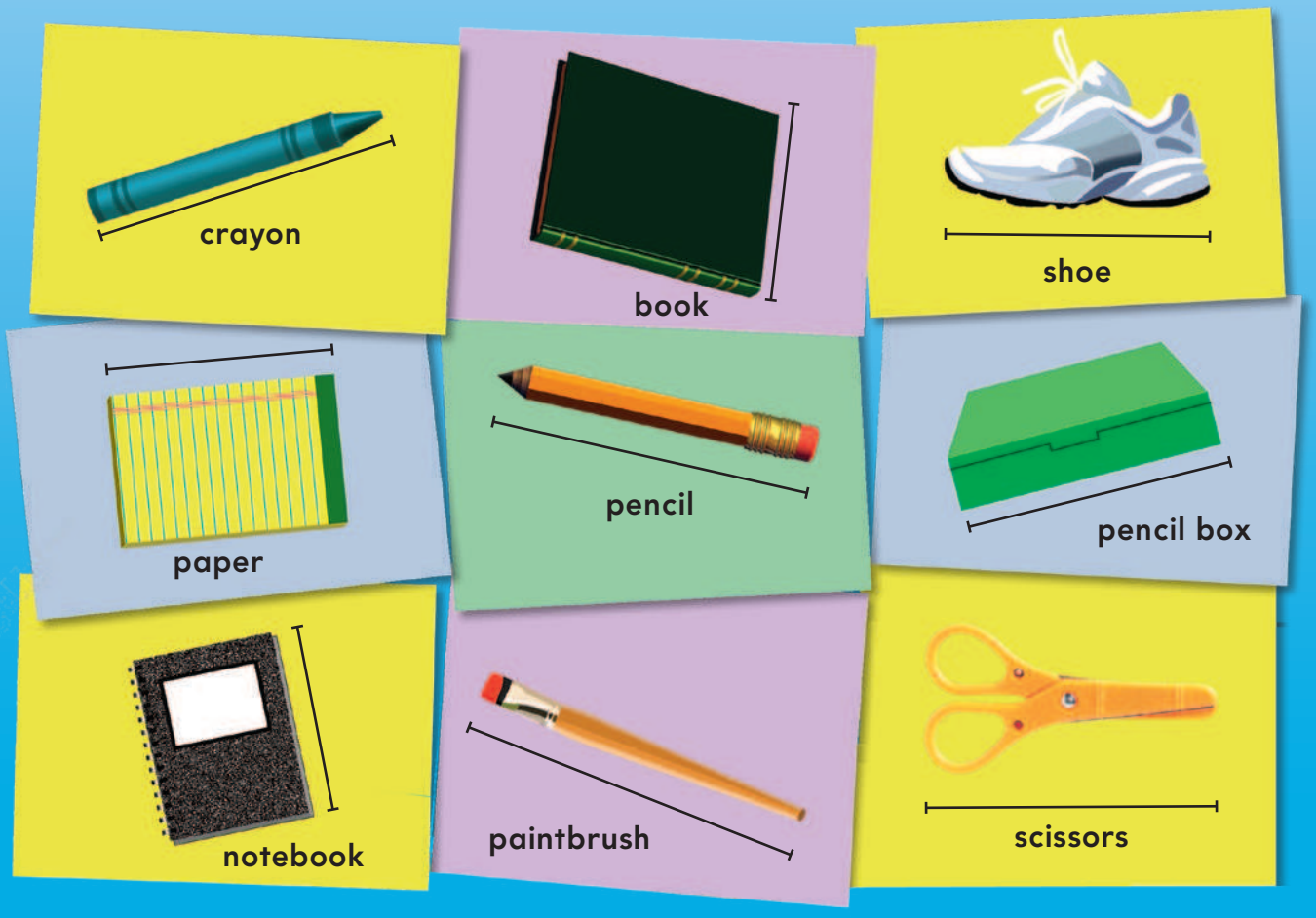
Materials

• 9 • 9 •

Play with a partner.

1. Each player chooses a picture on the board and then finds a real object that matches that picture.
2. Place the objects next to each other to find which is longer and which is shorter. If the objects are the same length, choose another object.
3. Spin the pointer on the spinner. The player with the object that matches the spinner puts a cube on that picture on the board.
4. Take turns until all the pictures have cubes. The player with more cubes on the board wins.





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Name _____

Measure with Inch Models

Essential Question How can you use inch models to measure length?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.6, MP.8

Listen and Draw

Real World

Hands On

Use color tiles to measure the length.

_____ color tiles

_____ color tiles

_____ color tiles

Math Talk **Mathematical Practices**

Describe how to use color tiles to measure the length of an object.

HOME CONNECTION • Your child used color tiles as an introduction to measurement of length before using standard measurement tools.

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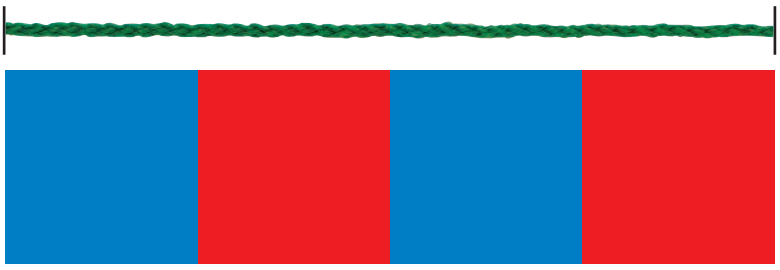
Model and Draw

A color tile is about 1 **inch** long.

About how many inches long is this string?



Count the color tiles to find how many inches long the string is.

The string is 4 color tiles long.

So, the string is about 4 inches long.

Share and Show

MATH BOARD

Use color tiles. Measure the length of the object in inches.

1.

about _____ inches

2.

about _____ inches

3.

about _____ inches

4.

about _____ inches

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Name _____

On Your Own

Use color tiles. Measure the length of the object in inches.

5.

about _____ inches

6.

about _____ inches

7.

about _____ inches

8.

about _____ inches

9.

about _____ inches

10.

about _____ inches

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Problem Solving • Applications (Real World) WRITE Math

11. THINK SMARTER Blue paper chains are 8 inches long. Red paper chains are 6 inches long. How many are needed to have 22 inches of paper chains?

_____ blue paper chains

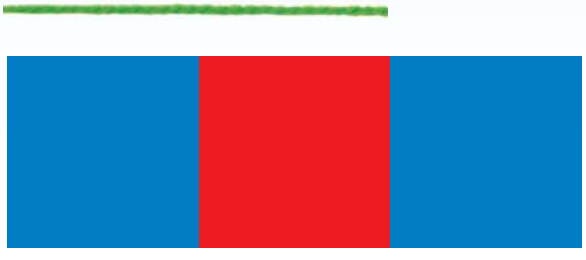
_____ red paper chains

12. MATHEMATICAL PRACTICE 2 **Use Reasoning** Liza has a ribbon that is 12 inches long. She needs to cut it into pieces that are each 4 inches long. How many pieces can she make?

_____ pieces

Personal Math Trainer

13. THINK SMARTER + Jeremy used color tiles to measure a string. Each tile is 1 inch long. How long is the string? Circle the number in the box to make the sentence true.



The string is about | 2 | 3 | 4 | inches long.

TAKE HOME ACTIVITY • Have your child use several of the same small item (such as paper clips) to measure the lengths of some objects at home.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Make and Use a Ruler

Essential Question Why is using a ruler similar to using a row of color tiles to measure length?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.6

Listen and Draw

Use color tiles. Make the given length. Trace along the edge to show the length.

4 inches

2 inches

3 inches

Math Talk **Mathematical Practices**

Describe how you knew how many color tiles to use for each length.

HOME CONNECTION • Your child used color tiles as 1-inch models to show different lengths. This activity helps to make inch units a more familiar concept.

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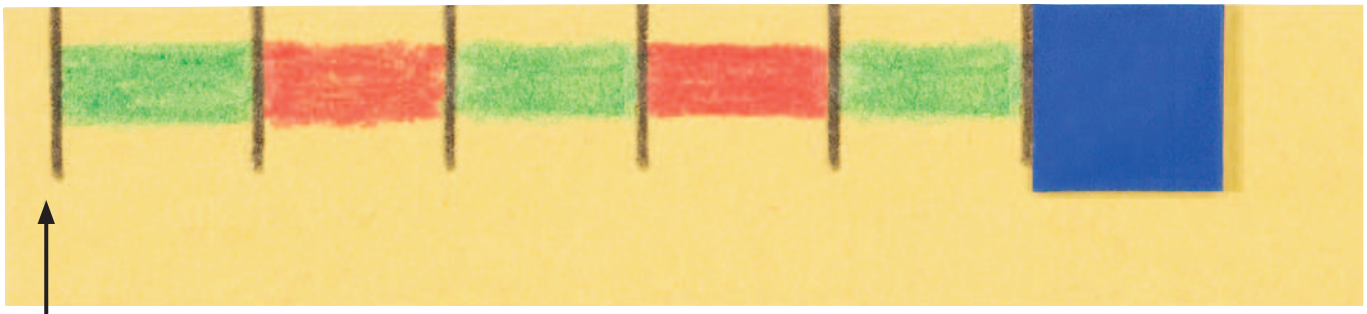
Model and Draw

Use a color tile to make a ruler on a paper strip.
Color 6 parts that are each about 1 inch long.



How to use your ruler:
Line up the left edge of an object with the first mark.

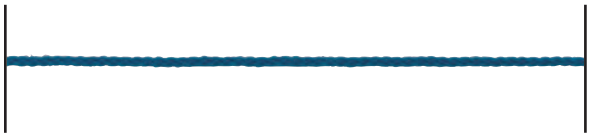
Share and Show

MATH BOARD

Measure the length with your ruler.
Count the inches.

1.

about _____ inches

2. 

about _____ inches

3.

about _____ inches

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Name _____

On Your Own

Measure the length with your ruler.
Count the inches.

4.

about _____ inches

5.

about _____ inches

6.

about _____ inches

7.

about _____ inches

8.

about _____ inches

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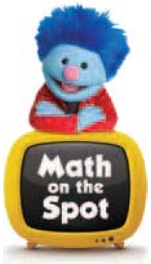
Problem Solving • Applications (Real World) WRITE Math

9. THINK SMARTER Work with a classmate. Use both of your rulers to measure the length of a bulletin board or a window. What is the length?



about _____ inches

10. MATHEMATICAL PRACTICE 6 **Explain** Describe what you did in Exercise 9. How did you measure a length that is longer than your rulers?

_____

_____

_____

11. THINK SMARTER Measure the length of the yarn with your ruler. Does the sentence describe the yarn. Choose Yes or No.

The yarn is 2 inches long.	○ Yes	○ No
The yarn is 3 inches long.	○ Yes	○ No
The yarn is less than 3 inches.	○ Yes	○ No
The yarn is longer than 2 inches.	○ Yes	○ No

TAKE HOME ACTIVITY • Choose one object in this lesson. Have your child find objects that are longer, about the same length, and shorter.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Estimate Lengths in Inches

Essential Question How do you estimate the lengths of objects in inches?

Measurement and Data—2.MD.3

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Hands On

Choose three objects. Measure their lengths with your ruler. Draw the objects and write their lengths.

about _____ inches

about _____ inches

about _____ inches

Math Talk **Mathematical Practices**

Describe how the three lengths compare. Which is the longest object?

FOR THE TEACHER • Provide a collection of small objects, 2 to 6 inches in length, for children to measure. Have them select one object, measure it, and return it before selecting another object.

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Model and Draw

The bead is 1 inch long. Use this bead to help find how many beads will fit on the string. Which is the best estimate for the length of the string?

2 inches

5 inches

8 inches

2 inches is too short.

5 inches is about right.

8 inches is too long.

Share and Show

MATH BOARD

Circle the best estimate for the length of the string.

1.

1 inch 3 inches 5 inches

2.

2 inches 4 inches 6 inches

3.

4 inches 6 inches 8 inches

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Name _____

On Your Own

Circle the best estimate for the length of the string.

4.

4 inches 7 inches 10 inches

5.

3 inches 6 inches 9 inches

6.

1 inch 3 inches 5 inches

7. THINK SMARTER Use the 1-inch mark. Estimate the length of each ribbon.

Estimates:

red ribbon: about _____ inches

blue ribbon: about _____ inches

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 1 **Analyze Relationships**

8. Sasha has a string that is the length of 5 beads. Each bead is 2 inches long. What is the length of the string?

_____ inches

9. Maurice has a string that is 15 inches long. He has beads that are each 3 inches long. How many beads will fit on the string?

_____ beads

10. THINK SMARTER Tameka has this string. She has many beads that are 1 inch long, like this blue bead. What is the best estimate for the length of the string? Draw more beads on the string to show your estimate.

_____ inches

TAKE HOME ACTIVITY • With your child, estimate the lengths in inches of some small objects, such as books.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Measure with an Inch Ruler

Essential Question How do you use an inch ruler to measure lengths?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.6

Listen and Draw

Real World

Draw each worm to match the given length.

Math Talk **Mathematical Practices**

Describe how you decided how long to draw the 2-inch and 3-inch worms.

FOR THE TEACHER • Have children use the rulers that they made in Lesson 8.2 to draw a worm that is 1 inch long. Have children use the 1-inch-long worm as a guide to draw a worm that is 2 inches long and a worm that is 3 inches long, without using their rulers.

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Model and Draw

What is the length of the string to the nearest inch?

2 inches

Step 1

Line up the end of the string with the zero mark on the ruler.

Step 2

Find the inch mark that is closest to the other end of the string.

Share and Show

MATH BOARD

Measure the length to the nearest inch.

1.

_____ inches

2.

_____ inches

3.

_____ inches

4.

_____ inches

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Name _____

On Your Own

Measure the length to the nearest inch.

5.

_____ inches

6.

_____ inches

7.

_____ inches

8.

_____ inches

9.

_____ inches

10.

_____ inches

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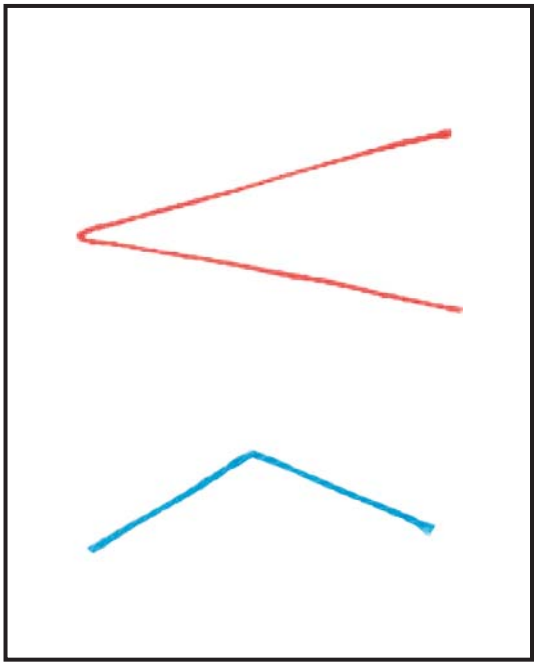
Problem Solving • Applications (Real World) WRITE Math

11. THINK SMARTER How much longer is the red string than the blue string?



_____ inches longer

12. THINK SMARTER If the red and blue strings were straight and placed end to end, what would the total length be?

_____ inches

13. THINK SMARTER Mrs. Grant's pencil is 5 inches long. Is this Mrs. Grant's pencil? Use an inch ruler to find out. Use the numbers and words on the tiles to make the sentences true.

3	4	5	is	is not

The pencil is _____ inches long.

This pencil _____ Mrs. Grant's pencil.

TAKE HOME ACTIVITY • Have your child measure the lengths of some objects to the nearest inch using a ruler or a similar measuring tool.

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Name _____

Problem Solving • Add and Subtract in Inches

Essential Question How can drawing a diagram help when solving problems about length?

Measurement and Data—2.MD.5, 2.MD.6

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

There is a paper clip chain that is 16 inches long. Aliyah removes 9 inches of paper clips from the chain. How long is the paper clip chain now?

Unlock the Problem

Real World

What do I need to find?

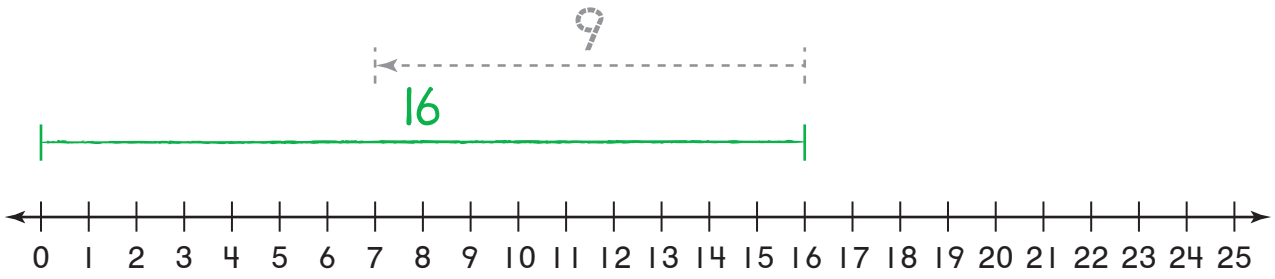
how long the paper clip chain is now

What information do I need to use?

The chain is _____ inches long.

_____ inches of paper clips are removed from the chain.

Show how to solve the problem.



_____

The paper clip chain is _____ inches long now.

HOME CONNECTION • Your child drew a diagram to represent a problem about lengths. The diagram can be used to choose the operation for solving the problem.

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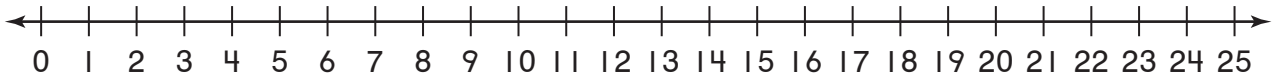
Try Another Problem

Draw a diagram. Write a number sentence using a ☐ for the missing number. Solve.

- What do I need to find?
- What information do I need to use?

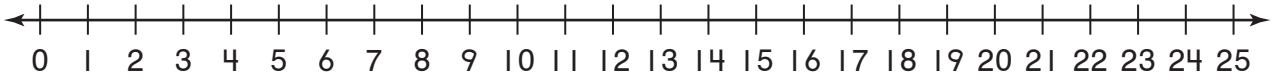
1. Carmen has a string that is 13 inches long and a string that is 8 inches long. How many inches of string does she have?



_____

Carmen has _____ inches of string.

2. Eli has a cube train that is 24 inches long. He removes 9 inches of cubes from the train. How long is Eli's cube train now?



_____

Eli's cube train is _____ inches long now.

Math Talk — **Mathematical Practices**

Describe how your diagram shows what happened in the second problem.

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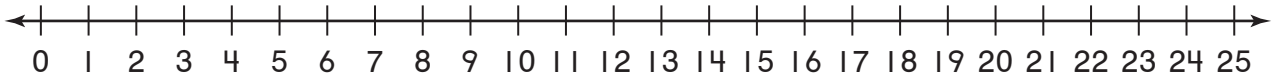
Name _____

Share and Show

MATH BOARD

Draw a diagram. Write a number sentence using a ☐ for the missing number. Solve.

3. Lee has a paper strip chain that is 25 inches long. He unhooks 13 inches from the chain. How long is Lee's paper strip chain now?

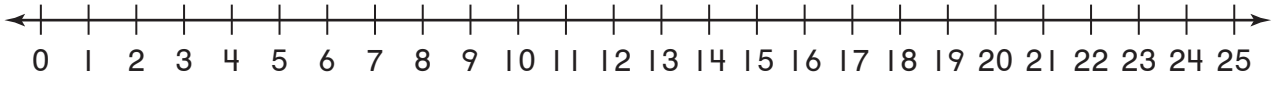


_____

Lee's paper strip chain is _____ inches long now.

---

4. THINK SMARTER Sue has two ribbons that have the same length. She has 18 inches of ribbon in all. How long is each ribbon?



_____

Each ribbon is _____ inches long.

TAKE HOME ACTIVITY • Have your child explain how he or she used a diagram to solve a problem in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Use color tiles. Measure the length of the object in inches. (2.MD.1)

1.

about _____ inches

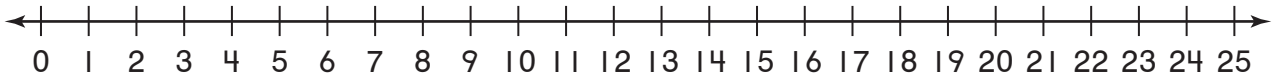
The bead is one inch long. Circle the best estimate for the length of the string. (2.MD.3)

2.

1 inch 2 inches 5 inches

Draw a diagram. Write a number sentence using a ☐ for the missing number. Solve.

3. A mark is 17 inches long. Katy erases 9 inches from the mark. How long is the mark now? (2.MD.5, 2.MD.6)



_____

The mark is _____ inches long now.

4. THINK SMARTER Use an inch ruler. What is the length of the string to the nearest inch? (2.MD.1)

_____ inches

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Name _____

Measure in Inches and Feet

Essential Question Why is measuring in feet different from measuring in inches?

Measurement and Data—2.MD.2

MATHEMATICAL PRACTICES
MP.5, MP.6, MP.7

Listen and Draw

Real World

Hands On

Draw or write to describe how you did each measurement.

First measurement

Second measurement

Math Talk **Mathematical Practices**

Describe how the length of a sheet of paper and the length of a paper clip are different.

FOR THE TEACHER • Have pairs of children stand apart and measure the distance between them with sheets of paper folded in half lengthwise. Then have them measure the same distance using large paper clips.

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Model and Draw

12 inches is the same as 1 **foot**.
A 12-inch ruler is 1 foot long.
You can measure lengths in inches and also in feet.

The real table is about 60 inches long.
The real table is also about 5 feet long.

Share and Show

MATH BOARD

Measure to the nearest inch.
Then measure to the nearest foot.

	Find the real object.	Measure.
1.	desk	_____ inches _____ feet
2.	window	_____ inches _____ feet
3.	door	_____ inches _____ feet

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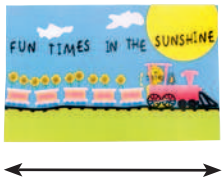
Name _____

On Your Own

Measure to the nearest inch.
Then measure to the nearest foot.

	Find the real object.	Measure.
4.	chalkboard	_____ inches _____ feet
5.	poster 	_____ inches _____ feet
6.	teacher's desk	_____ inches _____ feet
7.	easel	_____ inches _____ feet
8.	bulletin board	_____ inches _____ feet

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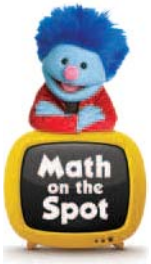
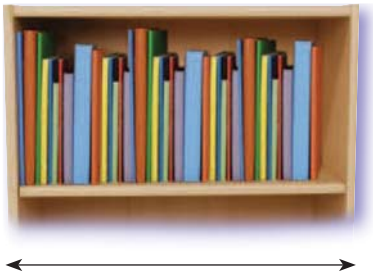
Problem Solving • Applications (Real World) WRITE Math

9. THINK SMARTER Estimate the length of a real shelf in inches and in feet. Then measure.





Estimates:	Measurements:
_____ inches	_____ inches
_____ feet	_____ feet

10. MATHEMATICAL PRACTICE 6 **Explain**

Look at your measurements for the shelf. Why is the number of inches different from the number of feet?

_____

_____

_____

_____

11. THINK SMARTER Use the words on the tiles that makes the sentence true.

inches | feet

A book shelf is 4 _____ long.

Deb's necklace is 20 _____ long.

A marker is 3 _____ long.

Jim's bicycle is 4 _____ long.

TAKE HOME ACTIVITY • Have your child measure the distance of a few footsteps in inches and then in feet.

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Name _____

Estimate Lengths in Feet

Essential Question How do you estimate the lengths of objects in feet?

Measurement and Data—2.MD.3

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Look for 3 classroom objects that are about the same length as a 12-inch ruler. Draw and label the objects.

Math Talk **Mathematical Practices**

Which objects have a greater length than the ruler? **Explain**.

FOR THE TEACHER • Provide a collection of objects for children to choose from. Set a 12-inch ruler on the table with the objects for children to use as a visual comparison.

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Model and Draw

Estimate how many 12-inch rulers will be about the same length as this bulletin board.

Think about how many rulers will fit end-to-end.

_____ rulers, or _____ feet

Share and Show

MATH BOARD

Find each object. Estimate how many 12-inch rulers will be about the same length as the object.

1. bookshelf

Estimate: _____ rulers, or _____ feet

2. chair

Estimate: _____ rulers, or _____ feet

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Name _____

On Your Own

Find each object. Estimate how many 12-inch rulers will be about the same length as the object.

3. desktop

Estimate: _____ rulers, or _____ feet

4. wall map

Estimate: _____ rulers, or _____ feet

5. window

Estimate: _____ rulers, or _____ feet

6. teacher's desk

Estimate: _____ rulers, or _____ feet

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Problem Solving • Applications (Real World) WRITE Math

7. THINK SMARTER Estimate the distance from your desk to the door in feet. Then estimate the same distance in inches.

_____ feet

_____ inches

Explain how you made your estimates for the number of feet and for the number of inches.

_____

_____

_____

8. THINK SMARTER Match the object with the estimate of its length in feet.

1 foot	3 feet	7 feet
●	●	●
●	●	●
jump rope	12-inch ruler	baseball bat

TAKE HOME ACTIVITY • With your child, estimate the lengths of some objects in feet.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Choose a Tool

Essential Question How do you choose a measuring tool to use when measuring lengths?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.8

Listen and Draw

Real World

Hands On

Draw or write to describe how you measured the distances with the yarn.

Distance 1

Distance 2

Math Talk **Mathematical Practices**

Which distance was longer? **Explain** how you know.

FOR THE TEACHER • Have each small group use a 1-yard piece of yarn to measure a distance marked on the floor with masking tape. Have groups repeat the activity to measure another distance that is different from the first one.

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Model and Draw

You can use different tools to measure lengths and distances.

inch ruler

An inch ruler can be used to measure shorter lengths.

yardstick

A **yardstick** shows 3 feet. It can be used to measure greater lengths and distances.

measuring tape

A **measuring tape** can be used to measure lengths and distances that are not flat or straight.

Share and Show

MATH BOARD

inch ruler
yardstick
measuring tape

Choose the best tool for measuring the real object. Then measure and record the length or distance.

1. the length of a book

Tool: _____

Length: _____

2. the distance around a cup

Tool: _____

Distance: _____

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Name _____

On Your Own

inch ruler
yardstick
measuring tape

Choose the best tool for measuring the real object. Then measure and record the length or distance.

3. the length of a chalkboard

Tool: _____

Length: _____

4. the length of a marker

Tool: _____

Length: _____

5. the distance around a globe

Tool: _____

Distance: _____

6. the length of a classroom wall

Tool: _____

Length: _____

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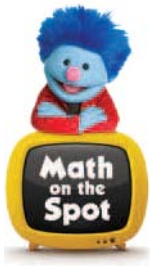
Problem Solving • Applications (Real World) WRITE Math

7. THINK SMARTER Rachel wants to measure the length of a sidewalk. Should she use an inch ruler or a yardstick? Explain.



Rachel should use _____ because

_____

_____

_____

8. MATHEMATICAL PRACTICE 3 **Apply**

What is an object that you would measure with a measuring tape? Explain why you would use this tool.

_____

_____

_____

Personal Math Trainer

9. THINK SMARTER + Jim measures the length of a picnic table with an inch ruler. Is Jim using the best tool for measuring? Explain.

_____

_____

_____

TAKE HOME ACTIVITY • Have your child name some objects that he or she would measure using a yardstick.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Display Measurement Data

Essential Question How can a line plot be used to show measurement data?

Measurement and Data—2.MD.9

MATHEMATICAL PRACTICES
MP.4, MP.5, MP.6

Listen and Draw

Real World

Hands On

Use an inch ruler. Measure and record each length.

_____ inches

_____ inches

_____ inches

Math Talk **Mathematical Practices**

Describe how the lengths of the three strings are different.

HOME CONNECTION • Your child practiced measuring different lengths in inches in preparation for collecting measurement data in this lesson.

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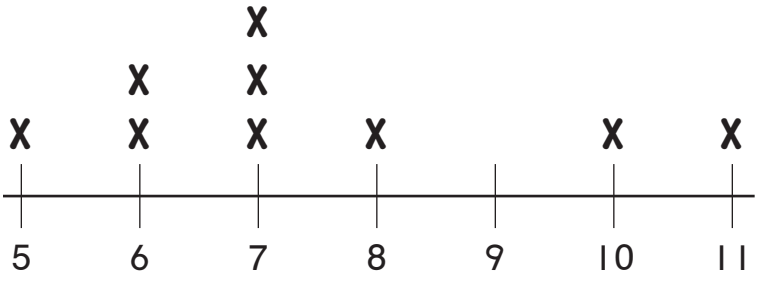
Model and Draw

A **line plot** is a way to show data. On this line plot, each ***X*** stands for the length of one pencil in inches.



Lengths of Pencils in Inches

How many pencils are just 6 inches long? How many different pencils are shown in this data?

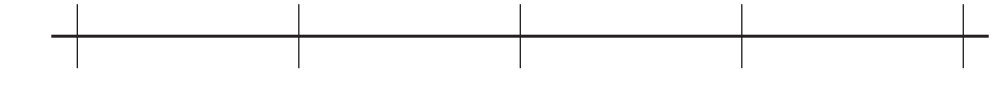
Share and Show

MATH BOARD

1. Use an inch ruler. Measure and record the lengths of 5 books in inches.

1st book: _____	inches
2nd book: _____	inches
3rd book: _____	inches
4th book: _____	inches
5th book: _____	inches

2. Write a title for the line plot. Then write the numbers and draw the ***X***s.



_____ _____ _____ _____ _____

_____

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Name _____

On Your Own

3. Use an inch ruler. Measure and record the lengths of 5 pencils in inches.

1st pencil: _____ inches
2nd pencil: _____ inches
3rd pencil: _____ inches
4th pencil: _____ inches
5th pencil: _____ inches

4. Write a title for the line plot. Then write the numbers and draw the ***X***s.

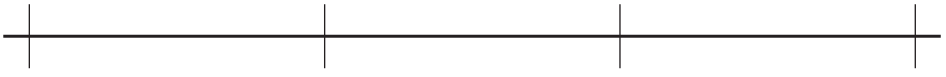
_____ _____ _____ _____ _____

_____

---

5. Use an inch ruler. Measure and record the lengths of 4 crayons in inches. Then complete the line plot.

1st crayon: _____ inches
2nd crayon: _____ inches
3rd crayon: _____ inches
4th crayon: _____ inches



_____ _____ _____ _____

_____

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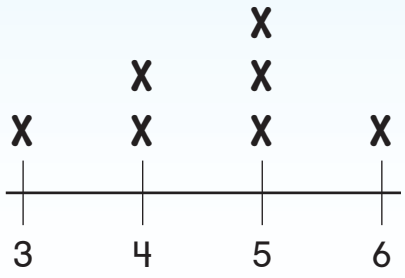
Problem Solving • Applications (Real World) WRITE Math

6. THINK SMARTER Use the data in the list to complete the line plot.

Lengths of Ribbons
6 inches
5 inches
7 inches
6 inches

7. THINK SMARTER Sarah made a line plot to show the data about the length of leaves. Is Sarah's line plot correct? Tell why or why not.

The Length of Leaves	
4 inches	6 inches
5 inches	4 inches
3 inches	5 inches
4 inches	



Lengths of Leaves in Inches

TAKE HOME ACTIVITY • Have your child describe how to make a line plot.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 8 Review/Test

1. Josh wants to measures the distance around a soccer ball.

Circle the best choice of tool.

inch ruler yardstick measuring tape

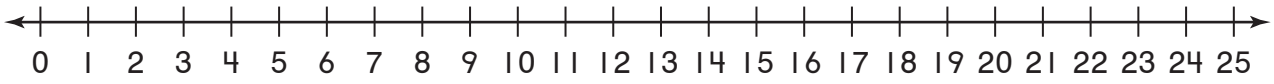
Explain your choice of tool.

_____

_____

2. Luke has a string that is 6 inches long and a string that is 11 inches long. How many inches of string does Luke have?

Draw a diagram. Write a number sentence using a ☐ for the missing number. Solve.



_____

Luke has _____ inches of string.

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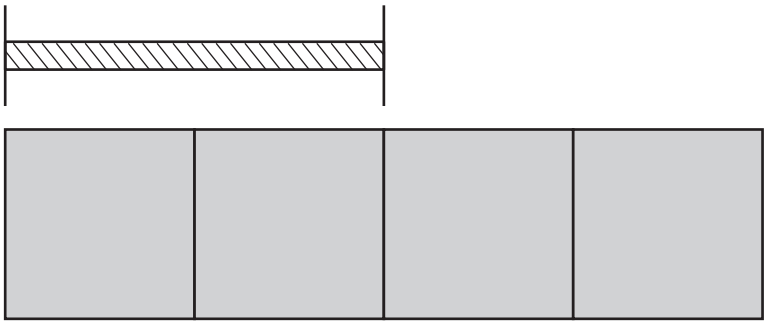
3. Use an inch ruler. What is the length of the lip balm to the nearest inch?

Circle the number in the box to make the sentence true.

The lip balm is | 2 / 3 / 4 | inches long.

---

4. Tom uses tiles to measure a string. Each tile is 1 inch long. Tom says the string is 3 inches long. Is he correct? Explain.



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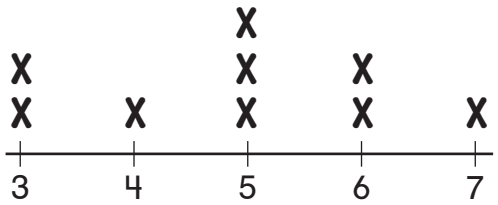
Name _____

5. Dalia made a line plot to show the lengths of her ribbons. How many ribbons are shown in the line plot?



Lengths of Ribbons in Inches

The line plot shows _____ ribbons.

Suppose Dalia cut one of the ribbons that is 6 inches long into two pieces that are each 3 inches long. Explain how she should change the line plot.

_____

_____

6. Use the words on the tiles to make the sentence true.

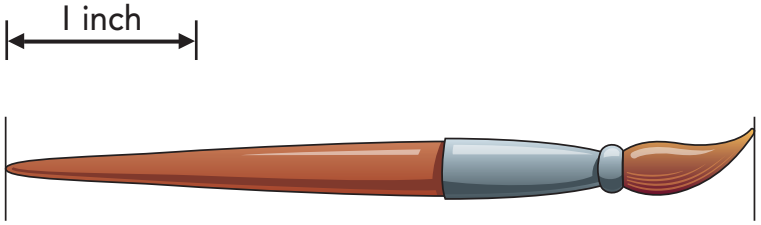
The table is 3 _____ long.

The belt is 30 _____ long.

The hallway is 15 _____ long.

inches	feet

7. Use the 1-inch mark. Estimate the length of each object.



about _____ inches

about _____ inches

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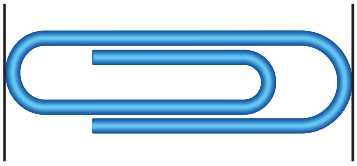
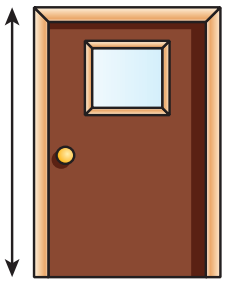
8. Use an inch ruler. What is the length of the paper clip to the nearest inch?



_____ inches

9. Estimate how many 12-inch rulers will be about the same height as a classroom door. Does the sentence describe the door? Choose Yes or No.



The door is about 8 feet high.	○ Yes	○ No
The door is less than 3 rulers high.	○ Yes	○ No
The door is more than 20 feet high.	○ Yes	○ No
The door is less than 15 rulers high.	○ Yes	○ No

What is your estimate of how wide the door is?

_____

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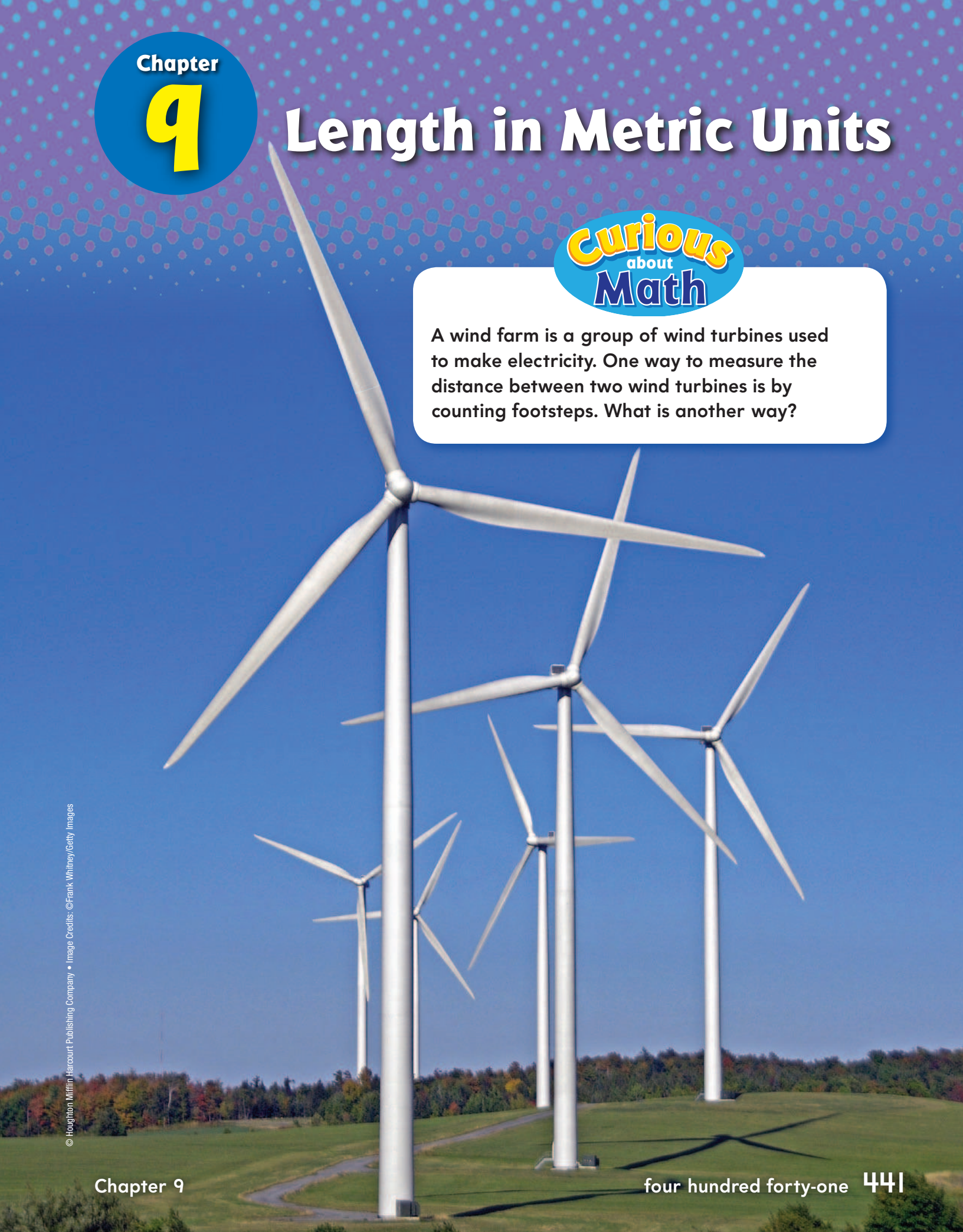
Chapter 9

Length in Metric Units



Curious about Math

A wind farm is a group of wind turbines used to make electricity. One way to measure the distance between two wind turbines is by counting footsteps. What is another way?

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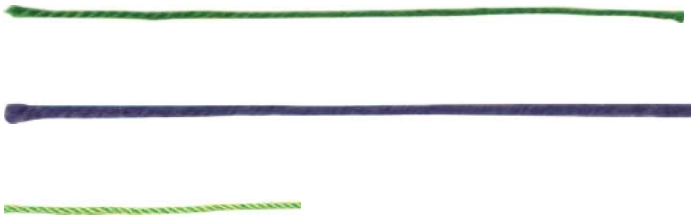
Name _____

Show What You Know

Compare Lengths

1. Order the strings from shortest to longest.
Write 1, 2, 3.



_____

_____

_____

Use Nonstandard Units to Measure Length

Use real objects and ■ to measure.

2.

about _____ ■

3.

about _____ ■

Measure Length Twice: Nonstandard Units

Use ▬ first. Then use 🖇.
Measure the length of the ribbon.

4. about _____ ▬

5. about _____ 🖇

This page checks understanding of important skills needed for success in Chapter 9.

Personal Math Trainer
Online Assessment and Intervention

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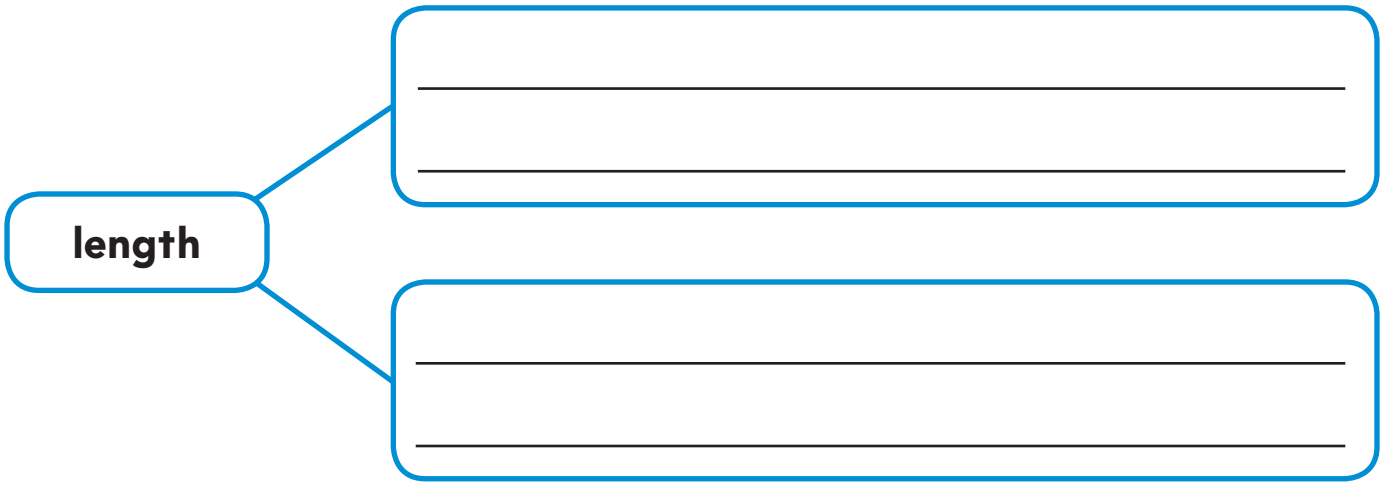
Name _____

Vocabulary Builder

Review Words
measure
length
estimate

Visualize It

Fill in the graphic organizer. Think of an object and write about how you can **measure** the **length** of that object.



Understand Vocabulary

Use the color tiles to **estimate** the length of each straw.

1.

about _____ tiles

2.

about _____ tiles

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Game

Estimating Length

Materials

- 12 • 12
- 15 • 15

Play with a partner.

1. Take turns choosing a picture. Find the real object.
2. Each player estimates the length of the object in cubes and then makes a cube train for his or her estimate.
3. Compare the cube trains to the length of the object. The player with the closer estimate puts a counter on the picture. If there is a tie, both players put a counter on the picture.
4. Repeat until all pictures are covered. The player with more counters on the board wins.

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Name _____

Measure with a Centimeter Model

Essential Question How do you use a centimeter model to measure the lengths of objects?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.6, MP.8

Listen and Draw

Real World

Hands On

Use ■ to measure the length.

_____ unit cubes

_____ unit cubes

_____ unit cubes

Math Talk Mathematical Practices

Describe how to use unit cubes to measure an object's length.

HOME CONNECTION • Your child used unit cubes as an introduction to measurement of length before using metric measurement tools.

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Model and Draw

A unit cube is about 1 **centimeter** long.

About how many centimeters long is this string?

You can make a mark for each centimeter to keep track and to count.

The string is about _____ centimeters long.

Share and Show

MATH BOARD

Use a unit cube. Measure the length in centimeters.

1.

about _____ centimeters

2.

about _____ centimeters

3.

about _____ centimeters

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Name _____

On Your Own

Use a unit cube. Measure the length in centimeters.

4.

about _____ centimeters

5.

about _____ centimeters

6.

about _____ centimeters

7.

about _____ centimeters

8.

about _____ centimeters

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Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

9. THINK SMARTER Mrs. Duncan measured the lengths of a crayon and a pencil. The pencil is twice as long as the crayon. The sum of their lengths is 24 centimeters. What are their lengths?

crayon: _____

pencil: _____

Personal Math Trainer

10. THINK SMARTER + Marita uses unit cubes to measure the length of a straw. Circle the number in the box that makes the sentence true.

The straw is

3
7
10

centimeters long.

TAKE HOME ACTIVITY • Have your child compare the lengths of other objects to those in this lesson.

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Name _____

Estimate Lengths in Centimeters

Essential Question How do you use known lengths to estimate unknown lengths?

Measurement and Data—2.MD.3

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Hands On

Find three classroom objects that are shorter than your 10-centimeter strip. Draw the objects. Write estimates for their lengths.

about _____ centimeters

about _____ centimeters

about _____ centimeters

Math Talk **Mathematical Practices**

Which object has a length closest to 10 centimeters? **Explain.**

HOME CONNECTION • Your child used a 10-centimeter strip of paper to practice estimating the lengths of some classroom objects.

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Model and Draw

This pencil is about 10 centimeters long.
Which is the most reasonable estimate for the length of the ribbon?

7 centimeters

13 centimeters

20 centimeters

The ribbon is longer than the pencil. 7 centimeters is not reasonable.

The ribbon is not twice as long as the pencil. 20 centimeters is not reasonable.

The ribbon is a little longer than the pencil.
So, 13 centimeters is the most reasonable estimate.

Share and Show

MATH BOARD

1. The yarn is about 5 centimeters long. Circle the best estimate for the length of the crayon.

10 centimeters

15 centimeters

20 centimeters

2. The string is about 12 centimeters long.
Circle the best estimate for the length of the straw.

3 centimeters

7 centimeters

11 centimeters

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Name _____

On Your Own

3. The rope is about 8 centimeters long. Circle the best estimate for the length of the paper clip.

2 centimeters

4 centimeters

8 centimeters

4. The pencil is about 11 centimeters long. Circle the best estimate for the length of the chain.

6 centimeters

10 centimeters

13 centimeters

5. The hair clip is about 7 centimeters long. Circle the best estimate for the length of the yarn.

10 centimeters

17 centimeters

22 centimeters

6. The ribbon is about 13 centimeters long. Circle the best estimate for the length of the string.

5 centimeters

11 centimeters

17 centimeters

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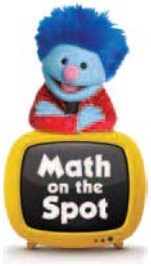
Problem Solving • Applications (Real World) WRITE Math

7. THINK SMARTER For each question, circle the best estimate.



About how long is a new crayon?	About how long is a new pencil?
5 centimeters	20 centimeters
10 centimeters	40 centimeters
20 centimeters	50 centimeters

8. MATHEMATICAL PRACTICE 1 **Analyze** Mr. Lott has 250 more centimeters of tape than Mrs. Sanchez. Mr. Lott has 775 centimeters of tape. How many centimeters of tape does Mrs. Sanchez have?

_____ centimeters

9. THINK SMARTER This feather is about 7 centimeters long. Rachel says the yarn is about 14 centimeters long. Is Rachel correct? Explain.

TAKE HOME ACTIVITY • Give your child an object that is about 5 centimeters long. Have him or her use it to estimate the lengths of some other objects.

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Name _____

Measure with a Centimeter Ruler

Essential Question How do you use a centimeter ruler to measure lengths?

Measurement and Data—2.MD.1

MATHEMATICAL PRACTICES
MP.5, MP.6

Listen and Draw

Real World

Hands On

Find three small objects in the classroom.
Use unit cubes to measure their lengths.
Draw the objects and write their lengths.

_____ centimeters

_____ centimeters

_____ centimeters

Math Talk **Mathematical Practices**

Describe how the three lengths compare. Which object is shortest?

HOME CONNECTION • Your child used unit cubes to measure the lengths of some classroom objects as an introduction to measuring lengths in centimeters.

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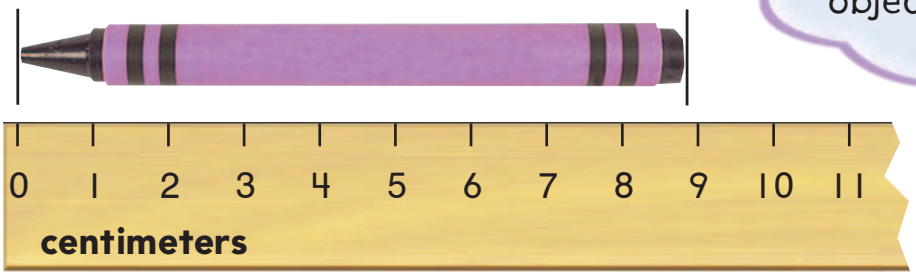
Model and Draw

What is the length of the crayon to the nearest centimeter?



Remember: Line up the left edge of the object with the zero mark on the ruler.

9 centimeters

Share and Show

MATH BOARD

Measure the length to the nearest centimeter.

1.

_____ centimeters

2.

_____ centimeters

3.

_____ centimeters

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Name _____

On Your Own

Measure the length to the nearest centimeter.

4.

_____ centimeters

5.

_____ centimeters

6.

_____ centimeters

7.

_____ centimeters

8.

_____ centimeters

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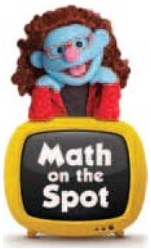
Problem Solving • Applications (Real World) WRITE Math

9. THINK SMARTER The crayon was on the table next to the centimeter ruler. The left edge of the crayon was not lined up with the zero mark on the ruler.



What is the length of the crayon?
Explain how you found your answer.

10. THINK SMARTER This is Lee's string. Hana's string is 7 centimeters long. Whose string is longer? Use a centimeter ruler to find out. Explain.

TAKE HOME ACTIVITY • Have your child measure the lengths of some objects using a centimeter ruler.

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Name _____

Problem Solving • Add and Subtract Lengths

Essential Question How can drawing a diagram help when solving problems about lengths?

Measurement and Data—
2.MD.6, 2.MD.5

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.4

Nate had 23 centimeters of string.
He gave 9 centimeters of string to Myra.
How much string does Nate have now?

Unlock the Problem

Real World

What do I need to find?

how much string

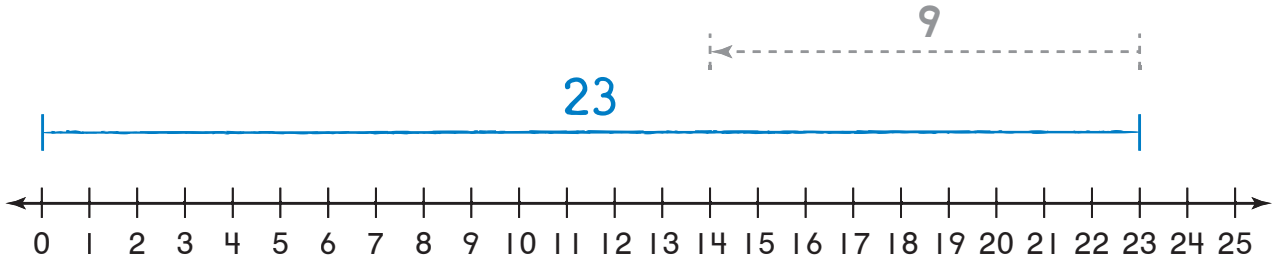
Nate has now

What information do I need to use?

Nate had _____ centimeters of string.

He gave _____ centimeters of string to Myra.

Show how to solve the problem.



_____

Nate has _____ centimeters of string now.

HOME CONNECTION • Your child drew a diagram to represent a problem about lengths. The diagram can be used to choose the operation for solving the problem.

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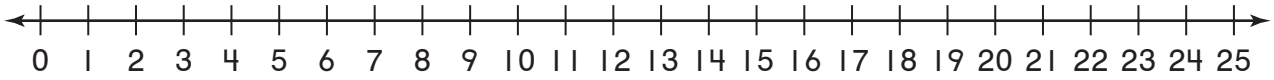
Try Another Problem

- What do I need to find?
- What information do I need to use?

Draw a diagram. Write a number sentence using a ▢ for the missing number. Then solve.

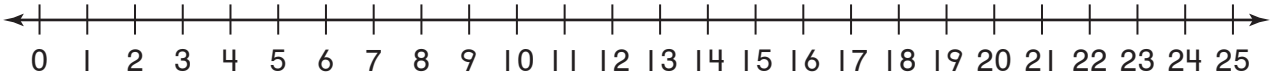
1. Ellie has a ribbon that is 12 centimeters long. Gwen has a ribbon that is 9 centimeters long. How many centimeters of ribbon do they have?



_____

They have _____ centimeters of ribbon.

2. A string is 24 centimeters long. Justin cuts 8 centimeters off. How long is the string now?



_____

Now the string is _____ centimeters long.

Math Talk **Mathematical Practices**

Explain how your diagram shows what happened in the first problem.

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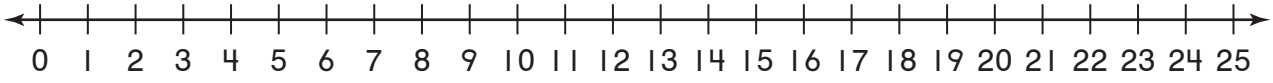
Name _____

Share and Show

MATH BOARD

Draw a diagram. Write a number sentence using a ☐ for the missing number. Then solve.

3. A chain of paper clips is 18 centimeters long. Sondra adds 6 centimeters of paper clips to the chain. How long is the chain now?

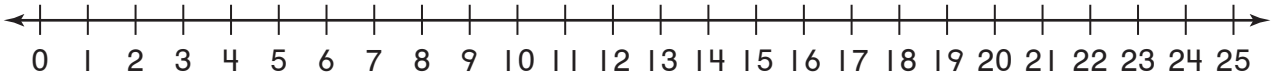


_____

The chain is _____ centimeters long now.

---

4. THINK SMARTER A ribbon was 22 centimeters long. Then Martha cut a piece off to give to Tao. Now the ribbon is 5 centimeters long. How many centimeters of ribbon did Martha give to Tao?



Martha gave _____ centimeters of ribbon to Tao.

TAKE HOME ACTIVITY • Have your child explain how he or she used a diagram to solve one problem in this lesson.

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Use a unit cube. Measure the length in centimeters. (2.MD.1)

1.

about _____ centimeters

2.

about _____ centimeters

3. The pencil is about 11 centimeters long. Circle the best estimate for the length of the string. (2.MD.3)

7 centimeters

10 centimeters

16 centimeters

4. THINK SMARTER Use a centimeter ruler. What is the length of this ribbon to the nearest centimeter? (2.MD.1)

_____ centimeters

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Name _____

Centimeters and Meters

Essential Question How is measuring in meters different from measuring in centimeters?

Measurement and Data—2.MD.2

MATHEMATICAL PRACTICES
MP.5, MP.6, MP.7

Listen and Draw

Real World

Hands On

Draw or write to describe how you did each measurement.

1st measurement

2nd measurement

Math Talk **Mathematical Practices**

Describe how the lengths of the yarn and the sheet of paper are different.

FOR THE TEACHER • Have each small group use a 1-meter piece of yarn to measure a distance marked on the floor with masking tape. Then have them measure the same distance using a sheet of paper folded in half lengthwise.

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Model and Draw

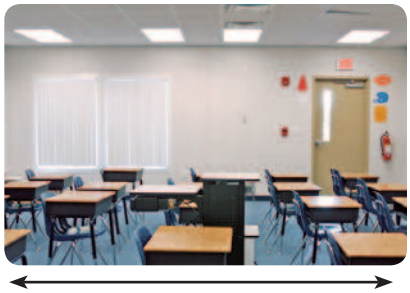
1 **meter** is the same as 100 centimeters.

The real door is about 200 centimeters tall.
The real door is also about 2 meters tall.

Share and Show

MATH BOARD

Measure to the nearest centimeter.
Then measure to the nearest meter.

	Find the real object.	Measure.
1.	chair	_____ centimeters _____ meters
✓ 2.	teacher's desk	_____ centimeters _____ meters
✓ 3.	wall 	_____ centimeters _____ meters

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Name _____

On Your Own

Measure to the nearest centimeter.
Then measure to the nearest meter.

	Find the real object.	Measure.
4.	chalkboard	_____ centimeters _____ meters
5.	bookshelf	_____ centimeters _____ meters
6.	table	_____ centimeters _____ meters

7. GO DEEPER Write these lengths in order from shortest to longest.

200 centimeters
10 meters
1 meter

_____

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Problem Solving • Applications (Real World) WRITE Math

8. THINK SMARTER Mr. Ryan walked next to a barn. He wants to measure the length of the barn. Would the length be a greater number of centimeters or a greater number of meters? Explain your answer.

_____

_____

_____

9. THINK SMARTER Write the word on the tile that makes the sentence true.

centimeters	meters

A bench is 2 _____ long.

A pencil is 15 _____ long.

A paper clip is 3 _____ long.

A bed is 3 _____ long.

TAKE HOME ACTIVITY • Have your child describe how centimeters and meters are different.

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Name _____

Estimate Lengths in Meters

Essential Question How do you estimate the lengths of objects in meters?

Measurement and Data—2.MD.3

MATHEMATICAL PRACTICES
MP.6, MP.7

Listen and Draw

Real World

Find an object that is about 10 centimeters long. Draw and label it.

Is there a classroom object that is about 50 centimeters long? Draw and label it.

Math Talk **Mathematical Practices**

Describe how the lengths of the two real objects compare.

FOR THE TEACHER • Provide a collection of objects for children to choose from. Above the table of displayed objects, draw and label a 10-centimeter line segment and a 50-centimeter line segment.

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Model and Draw

Estimate. About how many meter sticks will match the width of a door?

A 1-meter measuring stick is about 100 centimeters long.

about _____ meters

Share and Show

MATH BOARD

Find the real object.
Estimate its length in meters.

1. bookshelf

about _____ meters

2. bulletin board

about _____ meters

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Name _____

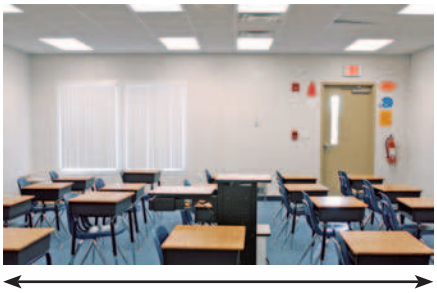
On Your Own

Find the real object.
Estimate its length in meters.

3. teacher's desk

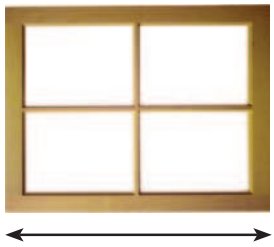
about _____ meters

4. wall



about _____ meters

5. window



about _____ meters

6. chalkboard

about _____ meters

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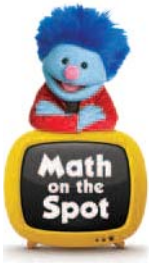
Problem Solving • Applications (Real World) WRITE Math

7. THINK SMARTER In meters, estimate the distance from your teacher's desk to the door of your classroom.



about _____ meters

Explain how you made your estimate.

_____

_____

_____

_____

8. THINK SMARTER Estimate the length of an adult's bicycle. Fill in the bubble next to all the sentences that are true.

- ○ The bicycle is about 2 meters long.
- ○ The bicycle is about 200 centimeters long.
- ○ The bicycle is less than 1 meter long.
- ○ The bicycle is about 2 centimeters long.
- ○ The bicycle is more than 200 meters long.

TAKE HOME ACTIVITY • With your child, estimate the lengths of some objects in meters.

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Name _____

Measure and Compare Lengths

Essential Question How do you find the difference between the lengths of two objects?

Measurement and Data—2.MD.4

MATHEMATICAL PRACTICES
MP.2, MP.4

Listen and Draw

Real World

Hands On

Measure and record each length.

_____ centimeters

_____ centimeters

Math Talk **Mathematical Practices**

Name a classroom object that is longer than the paintbrush. **Explain** how you know.

HOME CONNECTION • Your child measured these lengths as an introduction to measuring and then comparing lengths.

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Model and Draw

How much longer is the pencil than the crayon?

8 centimeters

5 centimeters

8 centimeters − 5 centimeters = ____ centimeters

The pencil is ____ centimeters longer than the crayon.

Share and Show

MATH BOARD

Measure the length of each object. Complete the number sentence to find the difference between the lengths.

1.

____ centimeters

____ centimeters

____ centimeters − ____ centimeters = ____ centimeters

The string is ____ centimeters longer than the straw.

2.

____ centimeters

____ centimeters

____ centimeters − ____ centimeters = ____ centimeters

The paintbrush is ____ centimeters longer than the toothpick.

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Name _____

On Your Own

Measure the length of each object. Complete the number sentence to find the difference between the lengths.

3.

_____ centimeters

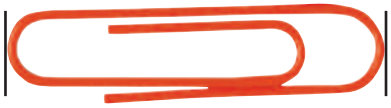
_____ centimeters

_____ centimeters − _____ centimeters = _____ centimeters

The yarn is _____ centimeters longer than the crayon.

4.

_____ centimeters



_____ centimeters

_____ centimeters − _____ centimeters = _____ centimeters

The string is _____ centimeters longer than the paper clip.

5. THINK SMARTER Use a centimeter ruler. Measure the length of your desk and the length of a book.

desk: _____ centimeters

book: _____ centimeters

Which is shorter? _____

How much shorter is it? _____

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Problem Solving • Applications (Real World) WRITE Math

MATHEMATICAL PRACTICE 1 **Analyze Relationships**

6. Mark has a rope that is 23 centimeters long. He cuts 15 centimeters off. What is the length of the rope now?

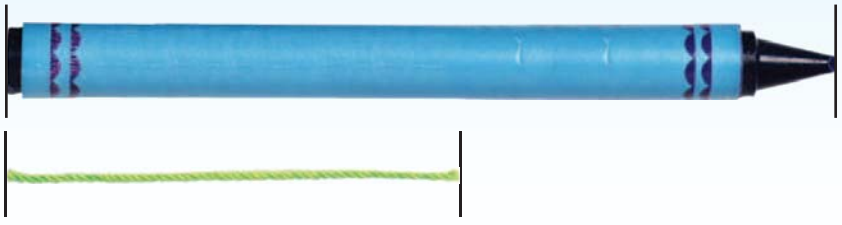
_____ centimeters

7. The yellow ribbon is 15 centimeters longer than the green ribbon. The green ribbon is 29 centimeters long. What is the length of the yellow ribbon?

_____ centimeters

Personal Math Trainer

8. THINK SMARTER + Measure the length of each object. Which object is longer? How much longer? Explain.



_____

_____

_____

TAKE HOME ACTIVITY • Have your child tell you how he or she solved one of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 9 Review/Test

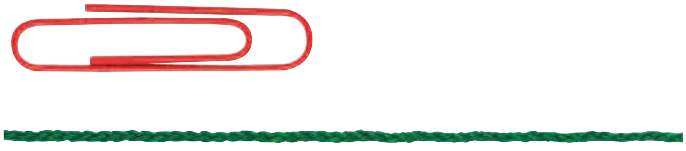
1. Michael uses unit cubes to measure the length of the yarn. Circle the number in the box that makes the sentence true.

The yarn is

2
4
6

centimeters long.

2. The paper clip is about 4 centimeters long. Robin says the string is about 7 centimeters long. Gale says the string is about 20 centimeters long.



Which girl has the better estimate? Explain.

_____

_____

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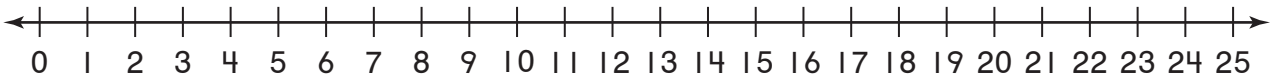
3. Sandy's paper chain is 14 centimeters long. Tim's paper chain is 6 centimeters long. How many centimeters of paper chain do they have? Draw a diagram. Write a number sentence using a ▢ for the missing number. Then solve.



_____

The paper chain is _____ centimeters long now.

---

4. Write the word on the tile that makes the sentence true.

centimeters	meters

A hallway is 4 _____ long.

A marker is 15 _____ long.

A toothpick is 5 _____ long.

A sofa is 2 _____ long.

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Name _____

5. Estimate the length of a real car. Fill in the bubble next to all the sentences that are true.

- ○ The car is about 4 meters long.
- ○ The car is less than 1 meter long.
- ○ The car is less than 6 meters long.
- ○ The car is about 20 centimeters long.
- ○ The car is more than 150 meters long.

---

6. Measure the length of each object. Does the sentence describe the objects? Choose Yes or No.

_____ centimeters

_____ centimeters

The marker is 11 centimeters longer than the crayon.	○ Yes	○ No
The crayon is 4 centimeters shorter than the marker.	○ Yes	○ No
The total length of the marker and the crayon is 18 centimeters.	○ Yes	○ No

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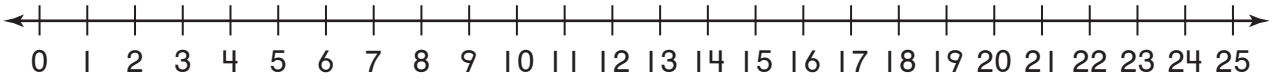
7. Ethan's rope is 25 centimeters long. Ethan cuts the rope and gives a piece to Hank. Ethan's rope is now 16 centimeters long. How many centimeters of rope does Hank have?

Draw a diagram. Write a number sentence using a ▢ for the missing number. Then solve.



_____

Hank has _____ centimeters of rope.

---

8. Measure the length of the paintbrush to the nearest centimeter. Circle the number in the box that makes the sentence true.

The paintbrush is about

12
13
14

centimeters long.

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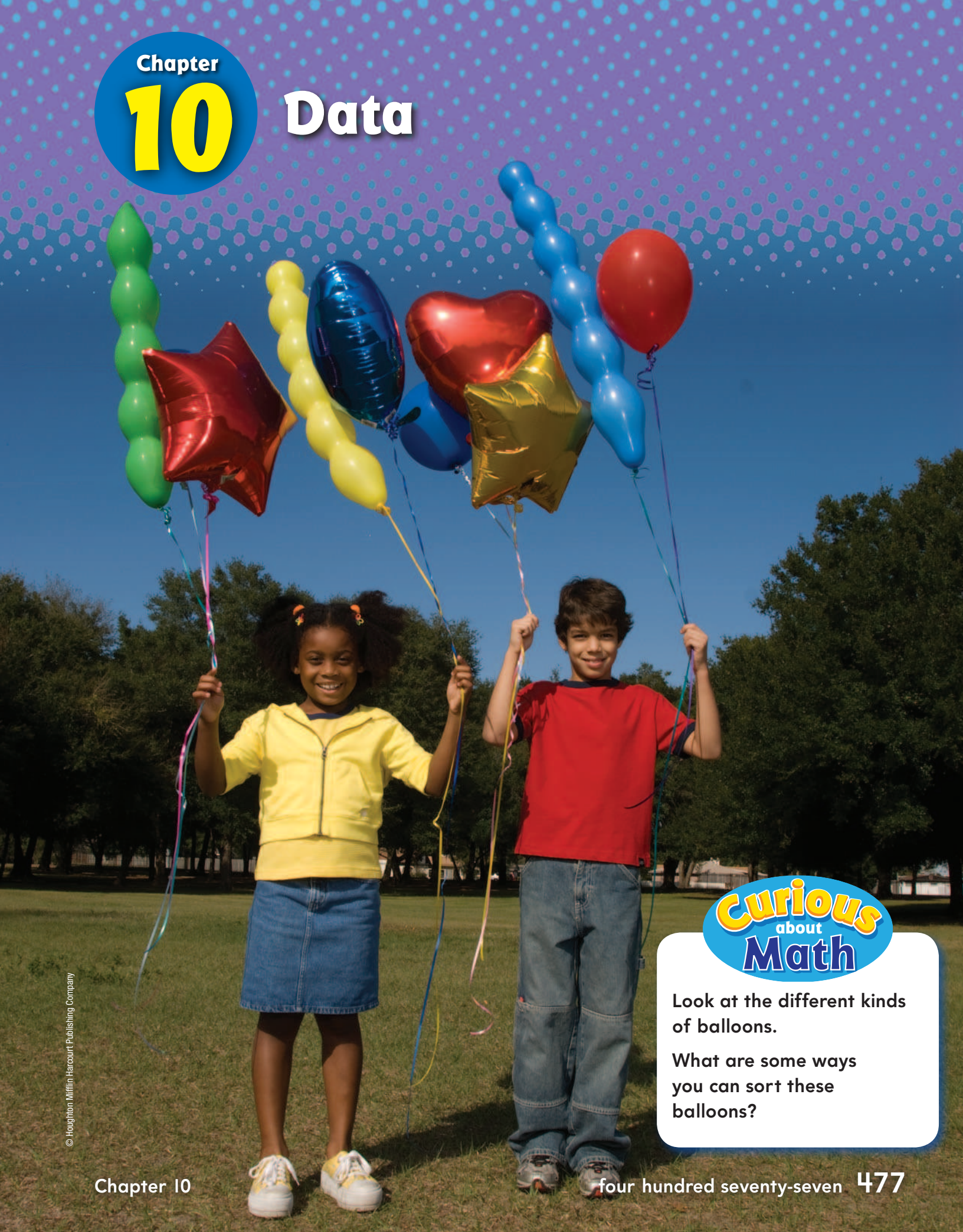
Chapter 10

Data



Curious about Math

Look at the different kinds of balloons.

What are some ways you can sort these balloons?

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Name _____

Show What You Know

Read a Picture Graph

Use the picture graph.

Fruit We Like					
orange					
pear					

1. How many children chose pear? _____ children

2. Circle the fruit that more children chose.

Read a Tally Chart

Complete the tally chart.

Color We Like		Total
green	𝍸	
red	𝍸 I	
blue	𝍸 𝍸	

3. How many children chose red?

_____ children

4. Which color did the fewest children choose?

_____

Addition and Subtraction Facts

Write the sum or difference.

5. $10 - 4 =$ ____

6. $4 + 5 =$ ____

7. $6 + 5 =$ ____

8. $9 - 3 =$ ____

9. $5 + 7 =$ ____

10. $11 - 3 =$ ____

This page checks understanding of important skills needed for success in Chapter 10.

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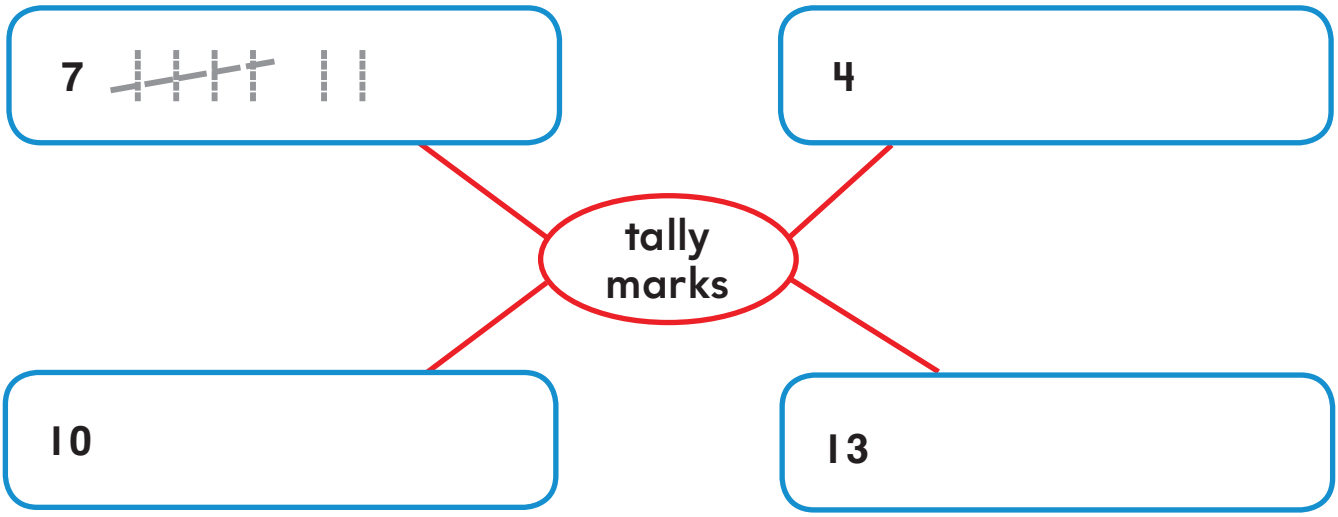
Name _____

Vocabulary Builder

Review Words
tally marks
more than
fewer than

Visualize It

Draw **tally marks** to show each number.



Understand Vocabulary

Write a number to complete the sentence.

1. 10 apples is **more than** _____ apples.

2. 6 bananas is **fewer than** _____ bananas.

3. _____ grapes is **more than** 6 grapes.

4. _____ oranges is **fewer than** 5 oranges.

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Game

Making Tens

Materials • • 25 • small bag

Play with a partner.

1. Put 25 in a bag.
2. Toss the . Take that many and put them on your ten frame. Take turns.
3. When you have 10 on your ten frame, make a tally mark on the tally chart. Then put the 10 back in the bag.
4. The first player to make 10 tally marks wins.

Player 1				

Player 2				

Making Tens	
Player	**Tally**
Player 1	
Player 2	

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Name _____

Collect Data

Essential Question How do you use a tally chart to record data from a survey?

Measurement and Data—2.MD.10

MATHEMATICAL PRACTICES
MP.1, MP.4, MP.6

Listen and Draw

Hands On

Take turns choosing a cube from the bag.
Draw a tally mark in the chart for each cube.

Cube Colors	
Color	Tally
blue	
red	
green	

HOME CONNECTION • Your child made tally marks to record the color of cubes taken from a bag. This activity prepares children for using and recording data in this chapter.

Math Talk **Mathematical Practices**

Explain how tally marks help you keep track of what has been taken.

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Model and Draw

You can take a **survey** to collect **data**.
You can record the data with tally marks.

Greg asked his classmates which lunch was their favorite.

Favorite Lunch	
Lunch	**Tally**
pizza	𝍸
sandwich	𝍸 |
salad	|||
pasta	𝍸

The tally marks in the tally chart show the children's answers. Each tally mark stands for one child's choice.

Share and Show

1. Take a survey. Ask 10 classmates which pet is their favorite. Use tally marks to show their choices.

Favorite Pet	
Pet	**Tally**
cat	
dog	
fish	
bird	

2. How many classmates chose dog?

_____ classmates

3. Which pet did the fewest classmates choose?

_____

4. Did more classmates choose cat or dog? _____

How many more? _____ more classmates

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Name _____

On Your Own

5. Take a survey. Ask 10 classmates which indoor game is their favorite. Use tally marks to show their choices.

Favorite Indoor Game	
Game	**Tally**
board	
card	
computer	
puzzle	

6. How many classmates chose board game?

_____ classmates

7. Which game did the most classmates choose?

_____

8. GO DEEPER Did more classmates choose a card game or a computer game?

_____

How many more? _____ more classmates

9. Which game did the fewest classmates choose?

_____

10. MATHEMATICAL PRACTICE 3 **Apply** How many classmates did not choose a board game or a puzzle? **Explain** how you know.

_____

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

11. THINK SMARTER Maeko asked her classmates to choose their favorite subject. She made this tally chart.

Favorite Subject	
Subject	**Tally**
reading	𝍸 |
math	𝍸 ||||
science	𝍸 𝍸

How many more classmates chose math than reading?

_____ more classmates

Write a question about the data in the chart. Then write the answer to your question.

_____

_____

_____

12. THINK SMARTER Fill in the bubble next to all the sentences that describe data in the tally chart.

- ○ 10 children voted for lunch.
- ○ 13 children voted for breakfast.
- ○ More children voted for dinner than for lunch.
- ○ A total of 35 children voted for their favorite meal.

Favorite Meal	
Meal	**Tally**
breakfast	𝍸 |||
lunch	𝍸 𝍸
dinner	𝍸 𝍸 ||

TAKE HOME ACTIVITY • With your child, take a survey about favorite games and make a tally chart to show the data.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Read Picture Graphs

Essential Question How do you use a picture graph to show data?

Measurement and Data—2.MD.10

MATHEMATICAL PRACTICES
MP.1, MP.2, MP.6

Listen and Draw

Real World

Use the tally chart to solve the problem. Draw or write to show what you did.

Favorite Hobby	
Hobby	**Tally**
crafts	𝍸 |
reading	||||
music	𝍸
sports	𝍸 ||

_____ more children

Math Talk **Mathematical Practices**

Can the chart be used to find how many girls chose music? **Explain.**

FOR THE TEACHER • Read the following problem. Mr. Martin's class made this tally chart. How many more children in his class chose sports than chose reading as their favorite hobby?

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Model and Draw

A **picture graph** uses pictures to show data.

Number of Soccer Games							
March	⚽	⚽	⚽	⚽			
April	⚽	⚽	⚽				
May	⚽	⚽	⚽	⚽	⚽	⚽	
June	⚽	⚽	⚽	⚽	⚽	⚽	⚽

Key: Each ⚽ stands for 1 game.

A **key** tells how many each picture stands for.

Share and Show

MATH BOARD

Use the picture graph to answer the questions.

Favorite Snack									
pretzels	☺	☺	☺	☺	☺	☺	☺	☺	
grapes	☺	☺	☺	☺	☺	☺	☺		
popcorn	☺	☺	☺						
apples	☺	☺	☺	☺	☺	☺			

Key: Each ☺ stands for 1 child.

1. Which snack was chosen by the fewest children? _____

2. How many more children chose pretzels than apples? _____ more children

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Name _____

On Your Own

Use the picture graph to answer the questions.

Number of Pencils									
Alana	✎	✎	✎						
Kiana	✎	✎	✎	✎	✎				
Dante	✎	✎	✎	✎					
Brad	✎	✎	✎	✎	✎	✎	✎	✎	

Key: Each ✎ stands for 1 pencil.

3. How many pencils do Alana and Brad have? _____ pencils

4. How many more pencils does Kiana have than Alana has? _____ more pencils

5. THINK SMARTER Mrs. Green has the same number of pencils as the four children. How many pencils does she have?

_____ pencils

6. MATHEMATICAL PRACTICE 4 **Use Graphs** Christy has 7 pencils. Write two sentences to describe how her number of pencils compares to the data in the picture graph.

_____

_____

_____

_____

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Problem Solving • Applications (Real World) WRITE Math

Favorite Balloon Color								
green								
blue								
red								
purple								

Key: Each stands for 1 child.

7. GO DEEPER Which three colors were chosen by a total of 13 children? _____

8. THINK SMARTER Use the numbers on the tiles to complete the sentence about the picture graph.

1	2	3
4	5	6

Number of Pets				
Scott				
Andre				
Maddie				

Key: Each stands for 1 pet.

Scott has ____ pets.

Andre has ____ fewer pets than Scott.

Maddie and Scott have ____ more pets than Andre.

TAKE HOME ACTIVITY • Have your child explain how he or she solved one of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Make Picture Graphs

Essential Question How do you make a picture graph to show data in a tally chart?

Measurement and Data—2.MD.10

MATHEMATICAL PRACTICES
MP.1, MP.4, MP.6

Listen and Draw

Take turns choosing a cube from the bag.
Draw a smiley face in the graph for each cube.

Cube Colors					
blue					
red					
green					
orange					

Key: Each ☺ stands for 1 cube.

Math Talk **Mathematical Practices**

Explain how you know that the number of smiley faces for blue matches the number of blue cubes.

HOME CONNECTION • Your child made a graph by recording smiley faces for the colors of cubes taken from a bag. This activity prepares children for working with picture graphs in this lesson.

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Model and Draw

Each picture in the graph stands for 1 flower.
Draw pictures to show the data in the tally chart.

Number of Flowers Picked	
Name	Tally
Jessie	𝍸 | | |
Inez	𝍸 𝍸
Paulo	𝍸 |

Number of Flowers Picked					
Jessie	⬭	⬭	⬭		
Inez					
Paulo					

Key: Each ⬭ stands for 1 flower.

Share and Show

MATH BOARD

1. Use the tally chart to complete the picture graph.
Draw a ☺ for each child.

Favorite Sandwich	
Sandwich	Tally
cheese	𝍸
ham	| |
tuna	| | | |
turkey	| | |

Favorite Sandwich					
cheese					
ham					
tuna					
turkey					

Key: Each ☺ stands for 1 child.

2. How many children chose tuna? _____ children

3. How many more children chose cheese than ham? _____ more children

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Name _____

On Your Own

4. Use the tally chart to complete the picture graph. Draw a ☺ for each child.

Favorite Fruit	
Fruit	Tally
apple	𝍸
plum	II
banana	𝍸 I
orange	III

Favorite Fruit					
apple					
plum					
banana					
orange					

Key: Each ☺ stands for 1 child.

5. How many children chose banana? _____ children

6. How many fewer children chose plum than banana? _____ fewer children

7. THINK SMARTER How many children chose a fruit that was not a plum?

_____ children

8. GO DEEPER Which three fruits were chosen by a total of 10 children?

TAKE HOME ACTIVITY • Ask your child to explain how to read the picture graph on this page.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Mid-Chapter Checkpoint

Concepts and Skills

Use the picture graph to answer the questions. (2.MD.10)

Favorite Season									
spring	☺	☺	☺	☺	☺	☺			
summer	☺	☺	☺	☺	☺	☺	☺	☺	
fall	☺	☺	☺	☺					
winter	☺	☺	☺	☺	☺	☺	☺		

Key: Each ☺ stands for 1 child.

1. Which season did the fewest children choose? _____

2. How many more children chose spring than fall? _____ more children

3. How many children chose a season that was not winter? _____ children

4. THINK SMARTER How many children chose a favorite season?

_____ children

Draw tally marks to show this number.

_____

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Name _____

Read Bar Graphs

Essential Question How is a bar graph used to show data?

Measurement and Data—2.MD.10
Also 2.MD.6
MATHEMATICAL PRACTICES
MP.1, MP.2, MP.6

Listen and Draw

Use the picture graph to solve the problem. Draw or write to show what you did.

Red Trucks Seen Last Week								
Morgan	■	■	■					
Terrell	■	■	■	■	■	■		
Jazmin	■	■	■	■	■	■	■	■
Carlos	■	■	■	■				

Key: Each ■ stands for 1 red truck.

_____ red trucks

Math Talk **Mathematical Practices**

Describe how the data in the graph for Terrell and for Jazmin are different.

FOR THE TEACHER • Read this problem to children. Morgan made a picture graph to show the number of red trucks that she and her friends saw last week. How many red trucks did the four children see last week?

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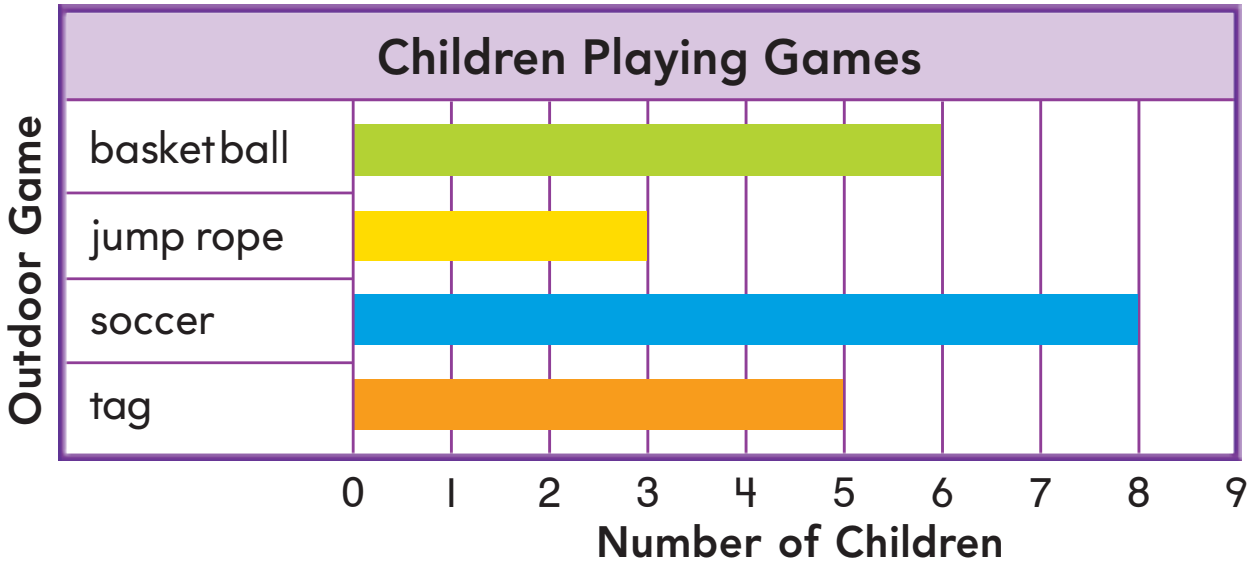
Model and Draw

A **bar graph** uses bars to show data.
Look at where the bars end.
This tells how many.

There are 8 children playing soccer.



Share and Show

MATH BOARD

Use the bar graph.

1. How many green marbles are in the bag?

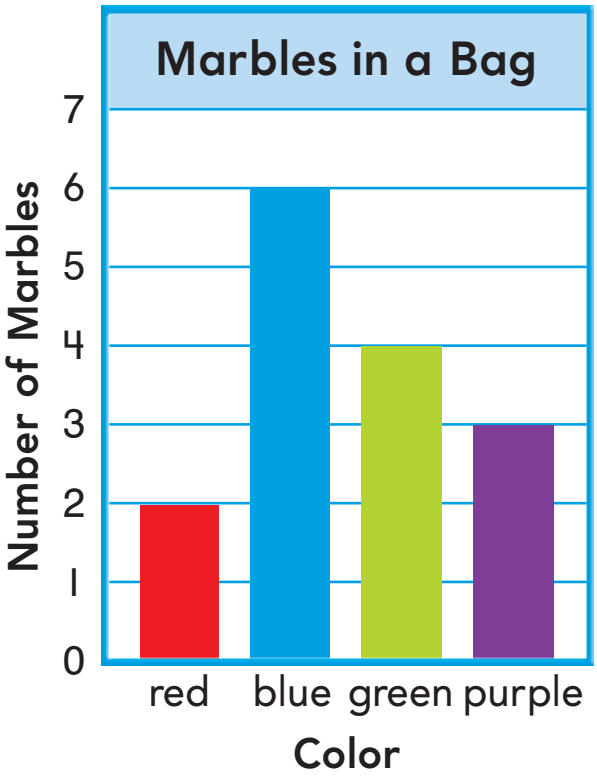
_____ green marbles

2. How many more blue marbles than purple marbles are in the bag?

_____ more blue marbles

3. How many marbles are in the bag?

_____ marbles



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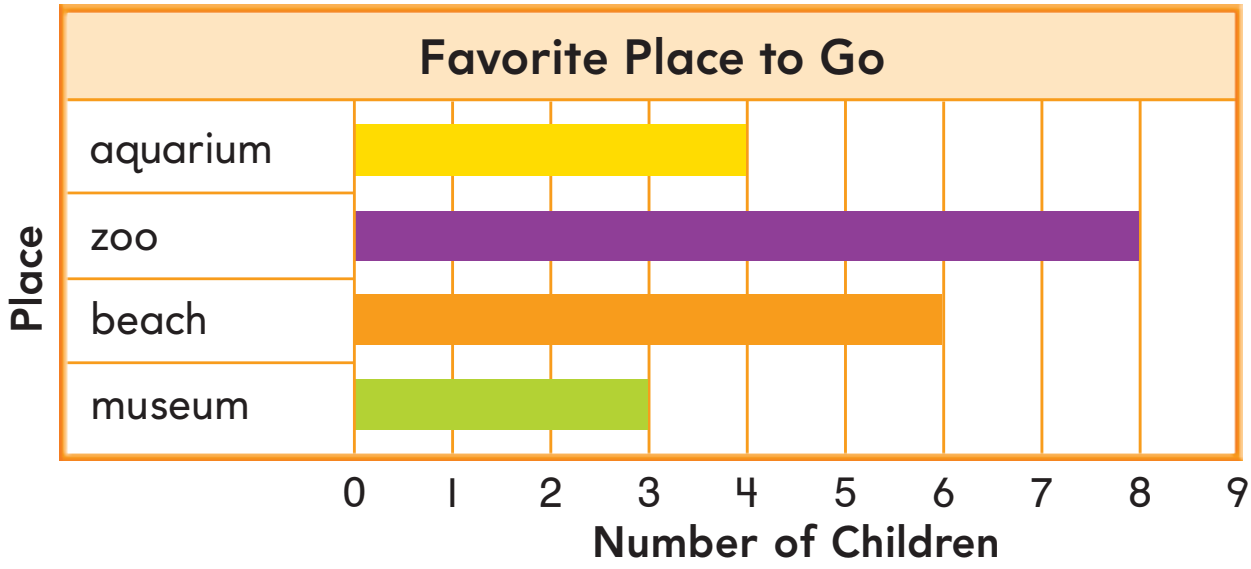
Name _____

On Your Own

Use the bar graph.



4. How many children chose the beach?

_____ children

5. Which place did the fewest children choose?

_____

6. How many more children chose the zoo than the aquarium?

_____ more children

7. GO DEEPER How many children chose a place that was not the zoo?

_____ children

8. THINK SMARTER Greg chose a place that has more votes than the aquarium and the museum together. Which place did Greg choose?

_____

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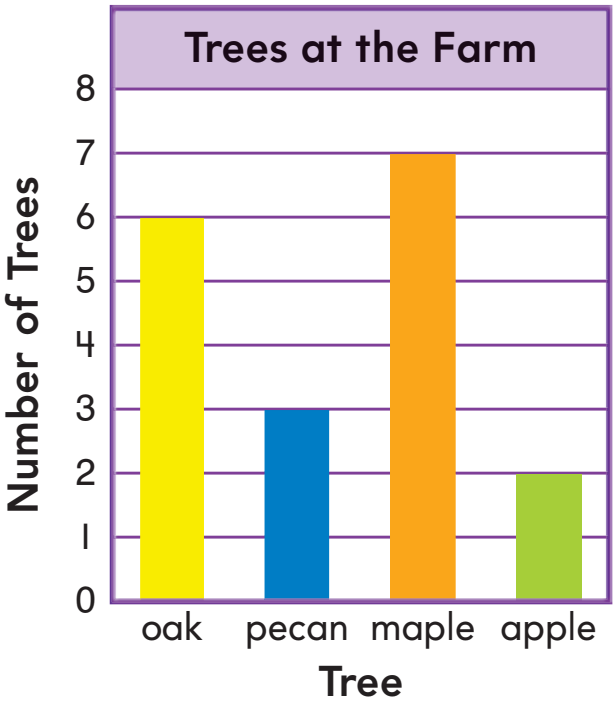
Problem Solving • Applications Real World

WRITE Math

Use the bar graph.



9. How many trees are at the farm?

_____ trees

10. How many trees are not apple trees?

_____ trees

11. MATHEMATICAL PRACTICE 6 **Explain** Suppose 7 more trees are brought to the farm. How many trees would be at the farm then? Explain.

12. THINK SMARTER Use the data in the bar graph about trees to finish the sentences.

There are ____ fewer apple trees than oak trees. Explain.

TAKE HOME ACTIVITY • Ask your child to explain how to read a bar graph.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Make Bar Graphs

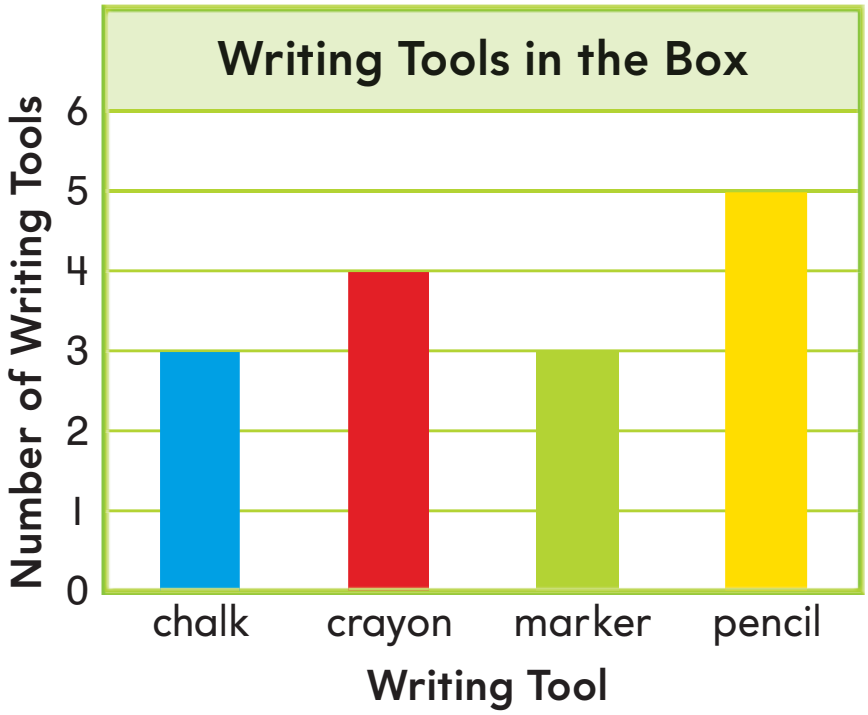
Essential Question How do you make a bar graph to show data?

Measurement and Data—2.MD.10
Also 2.MD.6
MATHEMATICAL PRACTICES
MP.3, MP.4, MP.6

Listen and Draw

Real World

Use the bar graph to solve the problem.
Draw or write to show what you did.



_____ writing tools

Math Talk **Mathematical Practices**

Describe how the information in the graph for crayon and for marker is different.

FOR THE TEACHER • Read the following problem. Barry made this bar graph. How many writing tools are in the box?

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Model and Draw

Abel read 2 books, Jiang read 4 books, Cara read 1 book, and Jamila read 3 books.

Complete the bar graph to show this data.

Share and Show

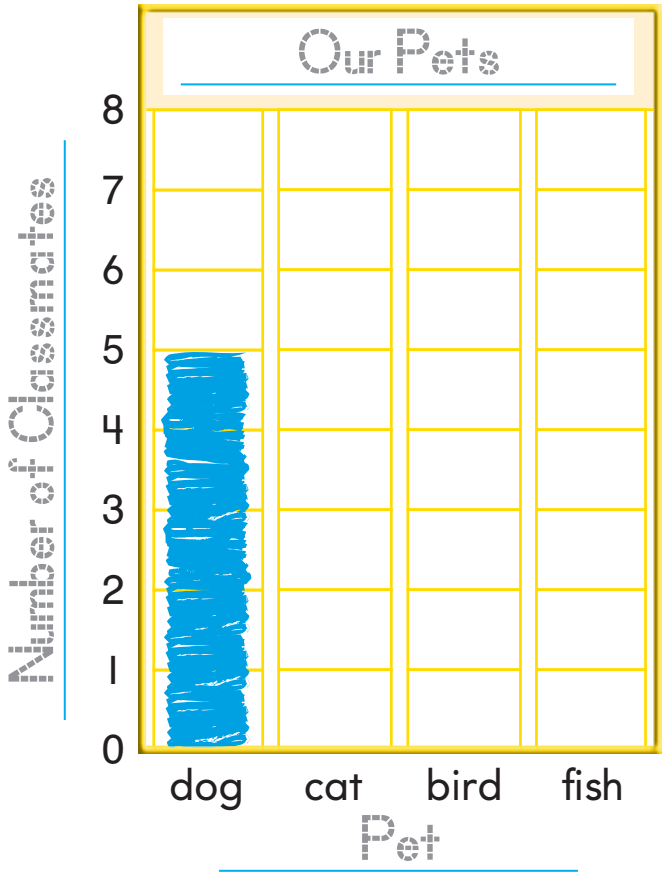
MATH BOARD

Ella is making a bar graph to show the kinds of pets her classmates have.

- 5 classmates have a dog.
- 7 classmates have a cat.
- 2 classmates have a bird.
- 3 classmates have fish.

1. Write labels and draw bars to complete the graph.

2. How will the graph change if one more child gets a bird?



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Name _____

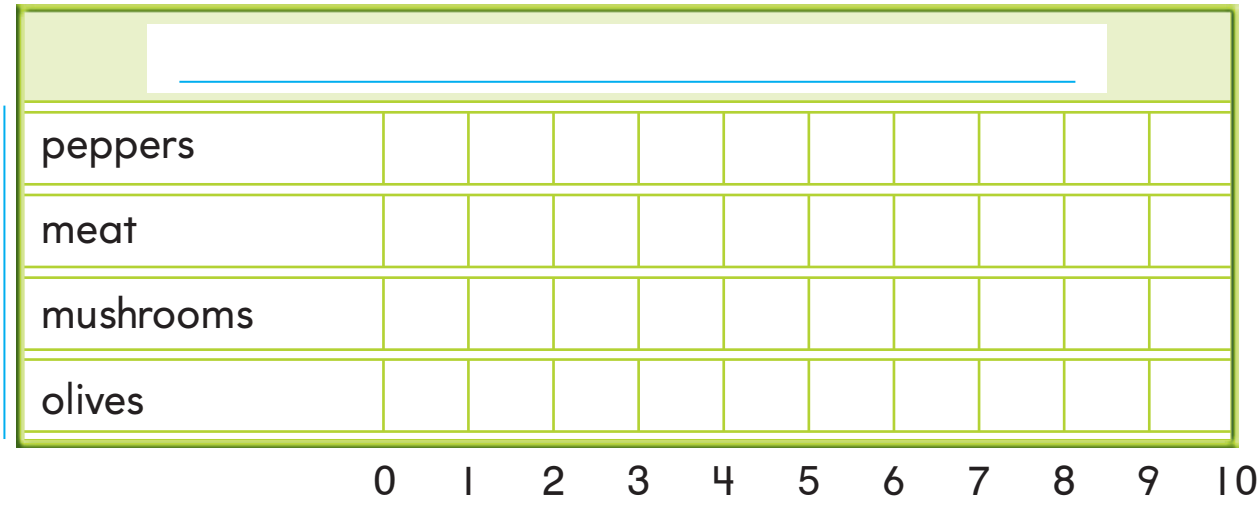
On Your Own

Dexter asked his classmates which pizza topping is their favorite.

- 4 classmates chose peppers.
- 7 classmates chose meat.
- 5 classmates chose mushrooms.
- 2 classmates chose olives.

3. Write a title and labels for the bar graph.

4. Draw bars in the graph to show the data.



5. Which topping did the most classmates choose? _____

6. THINK SMARTER Did more classmates choose peppers and olives than meat? Explain.

_____

_____

_____

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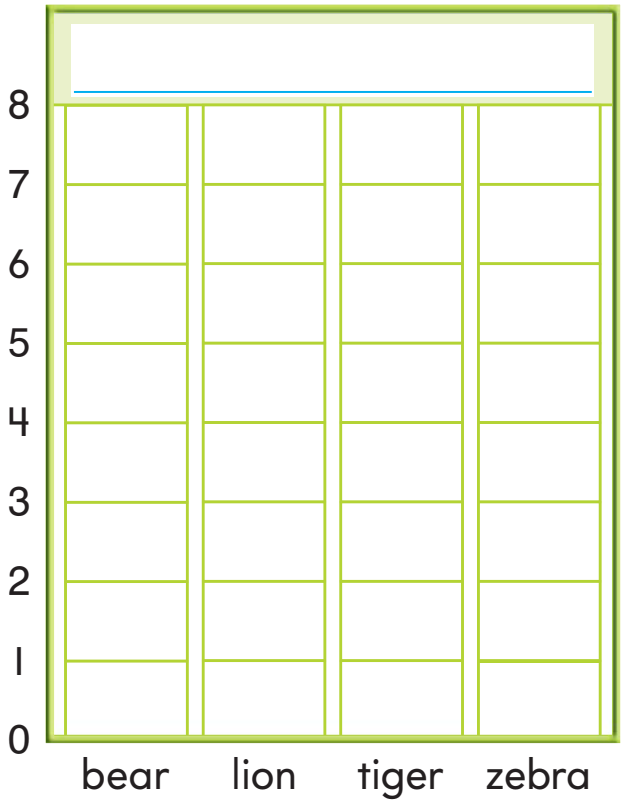
Problem Solving • Applications (Real World) WRITE Math

Cody asked his classmates which zoo animal is their favorite.

- 6 classmates chose bear.
- 4 classmates chose lion.
- 7 classmates chose tiger.
- 3 classmates chose zebra.

7. Use the data to complete the bar graph. Write a title and labels. Draw bars.



8. GO DEEPER How many fewer classmates chose lion than classmates that chose the other zoo animals?

_____ fewer classmates

Personal Math Trainer

9. THINK SMARTER + Look at the bar graph above.

Suppose 2 of Cody's classmates chose zebra instead of bear. Explain how the bar graph would change.

TAKE HOME ACTIVITY • Ask your child to describe how to make a bar graph to show data.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Problem Solving • Display Data

Essential Question How does making a bar graph help when solving problems about data?

Measurement and Data—2.MD.10
MATHEMATICAL PRACTICES
MP.1, MP.3, MP.4

Maria recorded the rainfall in her town for four months. How did the amount of rainfall change from September to December?

September	4 inches
October	3 inches
November	2 inches
December	1 inch

Unlock the Problem

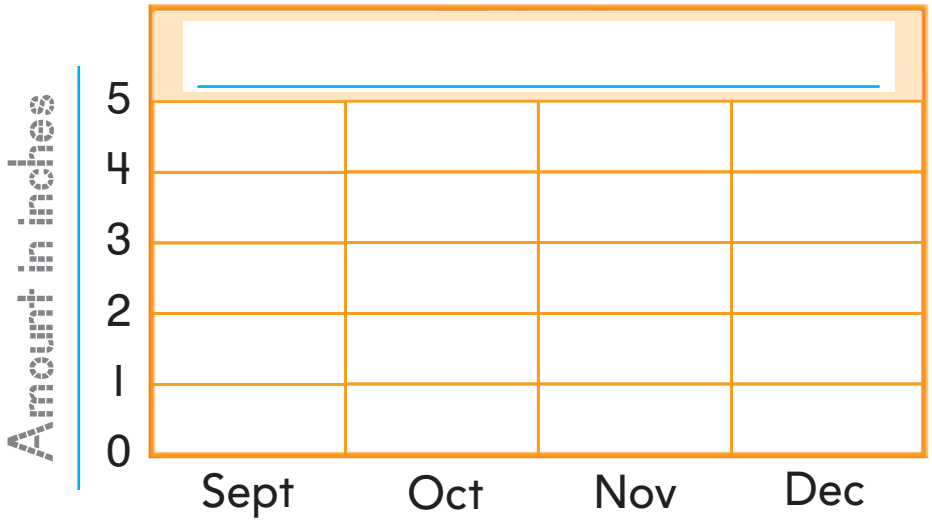
What do I need to find?

how the amount of rainfall changed from September to December

What information do I need to use?

the amount of rainfall in each of the four months

Show how to solve the problem.



The amount of rainfall _____

_____

HOME CONNECTION • Your child made a bar graph to show the data. Making a graph helps your child organize data to solve problems.

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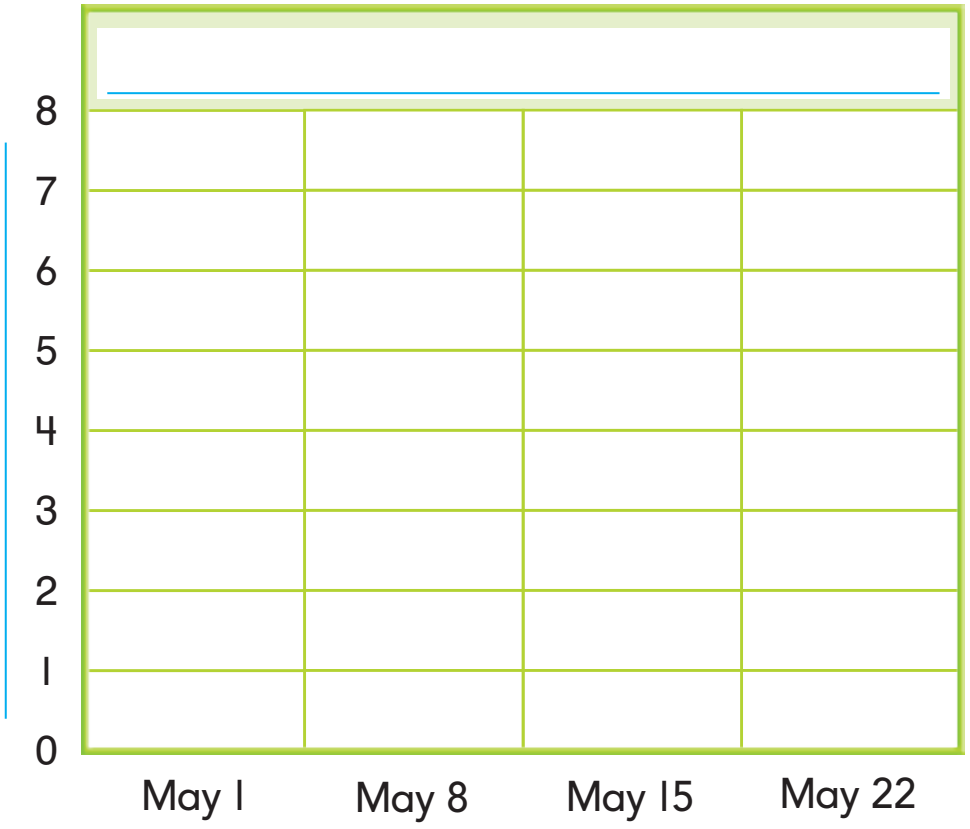
Try Another Problem

- What do I need to find?
- What information do I need to use?

Make a bar graph to solve the problem.

1. Matthew measured the height of his plant once a week for four weeks. Describe how the height of the plant changed from May 1 to May 22.

May 1	2 inches
May 8	3 inches
May 15	5 inches
May 22	7 inches



The height of the plant _____

_____

Math Talk Mathematical Practices

How many inches did the plant grow from May 1 to May 22? **Explain.**

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Name _____

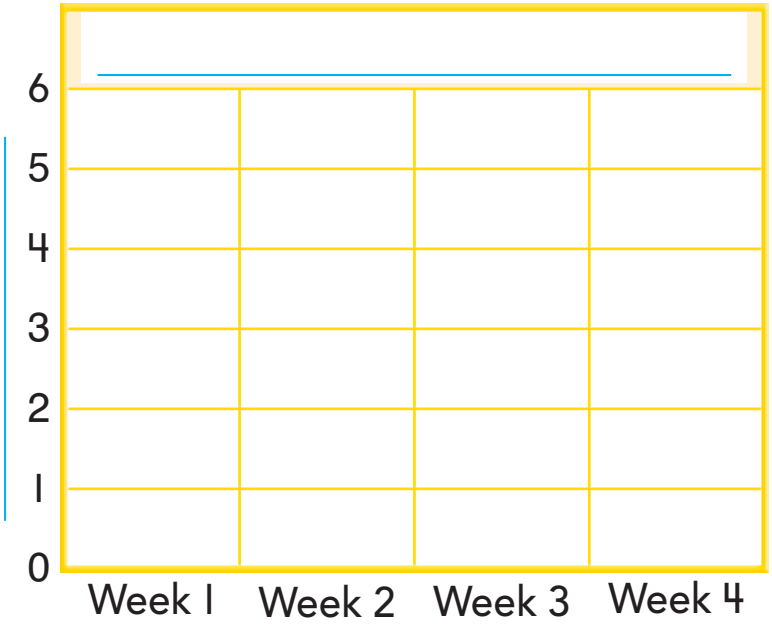
Share and Show

MATH BOARD

Make a bar graph to solve the problem.

2. Bianca wrote the number of hours that she practiced playing guitar in June. Describe how the amount of practice time changed from Week 1 to Week 4.

Week 1	1 hour
Week 2	2 hours
Week 3	4 hours
Week 4	5 hours



The amount of practice time _____

_____

3. THINK SMARTER If Bianca's practice time is 4 hours in Week 5, how does her practice time change from Week 1 to Week 5?

_____

_____

_____

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Problem Solving • Applications

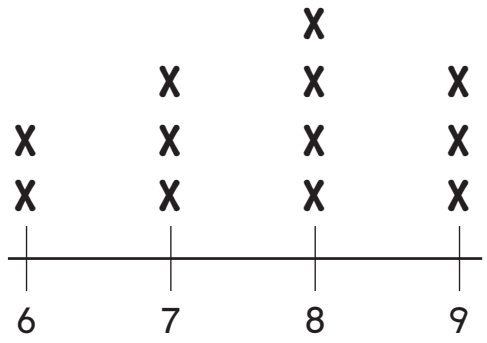
WRITE Math

4. How many strings are 9 inches long?

_____ strings

5. GO DEEPER How many strings are more than 6 inches long?

_____ strings

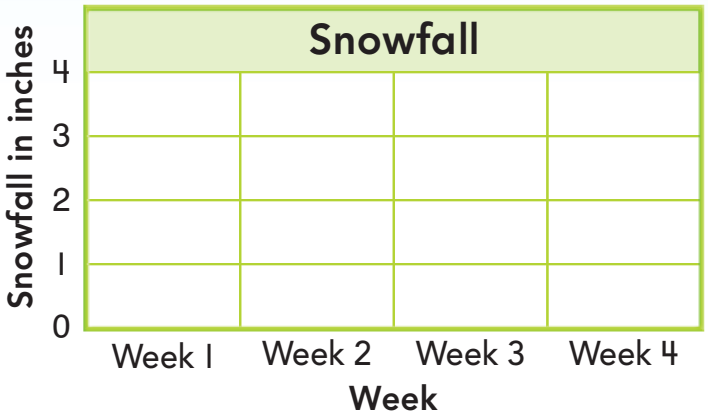


Lengths of Strings in Inches

Personal Math Trainer

6. THINK SMARTER + David measured the snowfall for four weeks. Fill in the bubble next to all the sentences that describe the data. Make a bar graph to solve the problem.

Week 1	1 inch
Week 2	2 inches
Week 3	3 inches
Week 4	4 inches



- ○ There were 2 inches of snow in Week 2.
- ○ The amount of snowfall increased each week.
- ○ Snowfall decreased from Week 3 to Week 4.
- ○ There were a total of 4 inches of snow in Week 2 and Week 3.
- ○ There were 3 more inches of snow in Week 4 than in Week 1.

TAKE HOME ACTIVITY • Have your child explain how he or she solved one of the problems in this lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Chapter 10 Review/Test

1. Hara asked her friends their favorite yogurt flavor. Use the data on the card to make a tally chart.

lime - 2 people
peach - 3 people
berry - 5 people
vanilla - 7 people

Favorite Yogurt Flavor	
Yogurt	**Tally**
peach	
berry	
lime	
vanilla	

2. Does the sentence describe the data in the tally chart above? Choose Yes or No.

7 children like berry and peach	○ Yes	○ No
More children like peach than lime	○ Yes	○ No
More children like vanilla than any other flavor.	○ Yes	○ No

3. Hara asked 5 more friends. 3 friends like berry and 2 friends like lime. Which flavor do most children choose now? Explain.

_____

_____

_____

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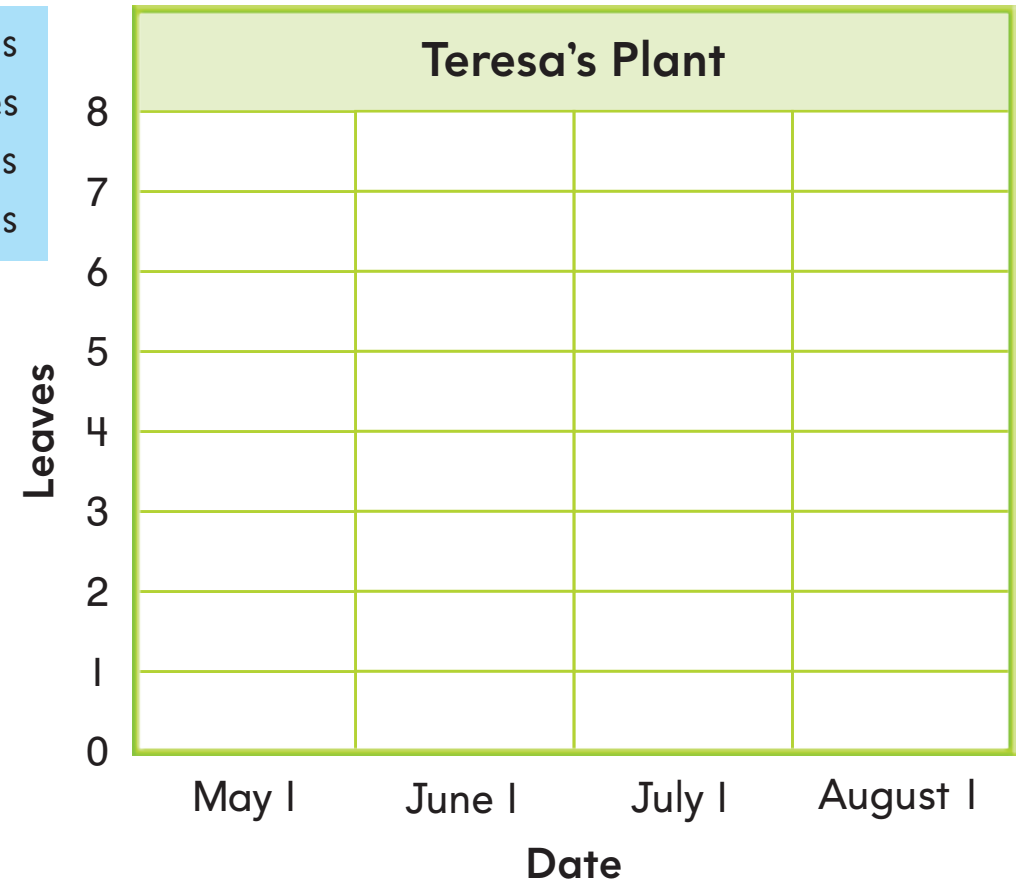
4. Teresa counted the leaves on her plant once a month for four months. Describe how the number of leaves on the plant changed from May 1 to August 1. Make a bar graph to solve the problem.

May 1	2 leaves
June 1	4 leaves
July 1	6 leaves
August 1	8 leaves



The number of leaves on the plant _____

_____

5. If Teresa counts 1 more leaf on September 1, how does the number of leaves change from May 1 to September 1?

_____

_____

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Name _____

6. Use the tally chart to complete the picture graph. Draw a ☺ for each child.

Favorite Recess Game	
tag	I
hopscotch	𝍸
kickball	III
jacks	II

Favorite Recess Game					
tag					
hopscotch					
kickball					
jacks					

Key: Each ☺ stands for 1 child.

7. How many children chose hopscotch?

_____ children

8. How many fewer children chose tag than kickball?

_____ fewer children

9. Which two games were chosen by a total of 4 children?

_____

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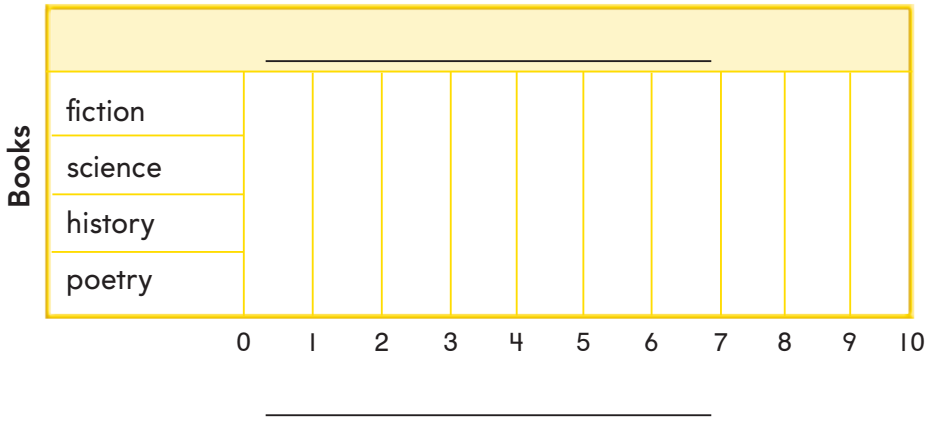
10. Mr. Sanchez asked the children in his class to name their favorite kind of book. Use the data to complete the bar graph.

8 children like fiction
4 children like science
6 children like history
9 children like poetry



11. Fill in the bubble next to all the sentences that describe the data in the bar graph above.

- ○ 8 children chose fiction.
- ○ Fewer children chose fiction than history.
- ○ 3 more children chose history than science.
- ○ More children chose poetry than any other kind of book.

12. Did more children choose science and history than poetry? Explain.

13. How many children chose a book that is not fiction?

_____ children

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A Farmer's Job

by Tami Morton

CRITICAL AREA Describing and analyzing shapes

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A farmer's job is never done. Farmers are busy during all of the seasons of the year. They grow fruits and vegetables for people to eat.

What shapes do you see?

_____

Social Studies

Why is a farmer's work important?

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In the spring, farmers get the fields ready.

They plow the fields and fertilize the soil.

They plant their seeds.

What shapes do you see?

_____

Social Studies

How is a farmer's work today different from long ago?

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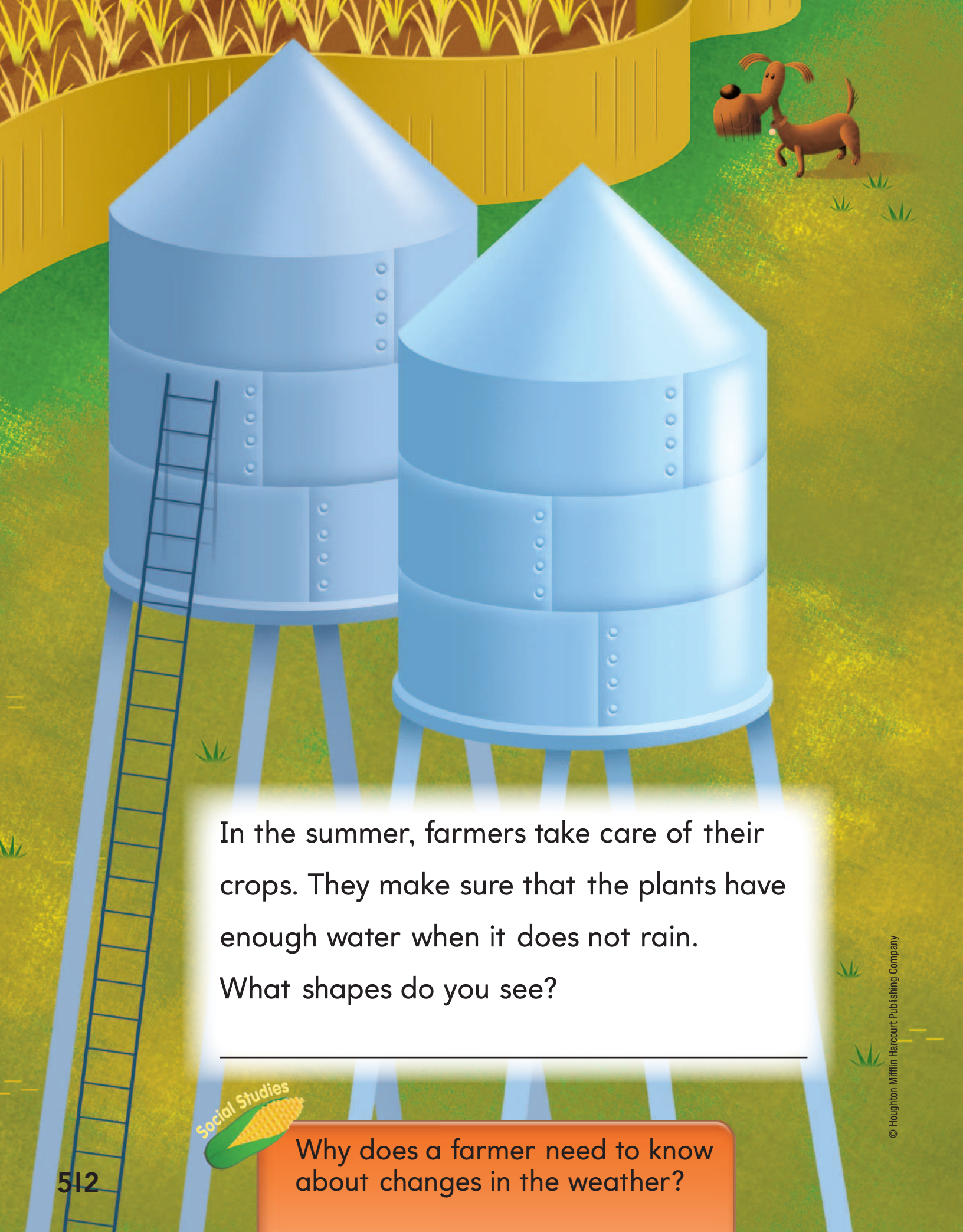

In the summer, farmers take care of their crops. They make sure that the plants have enough water when it does not rain.

What shapes do you see?

Social Studies

Why does a farmer need to know about changes in the weather?

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In the fall, farmers harvest many fruits and vegetables. They sell most of these fruits and vegetables to other people. What shapes do you see?

_____

Social Studies

Why does a farmer grow more fruits and vegetables than his or her family can eat?

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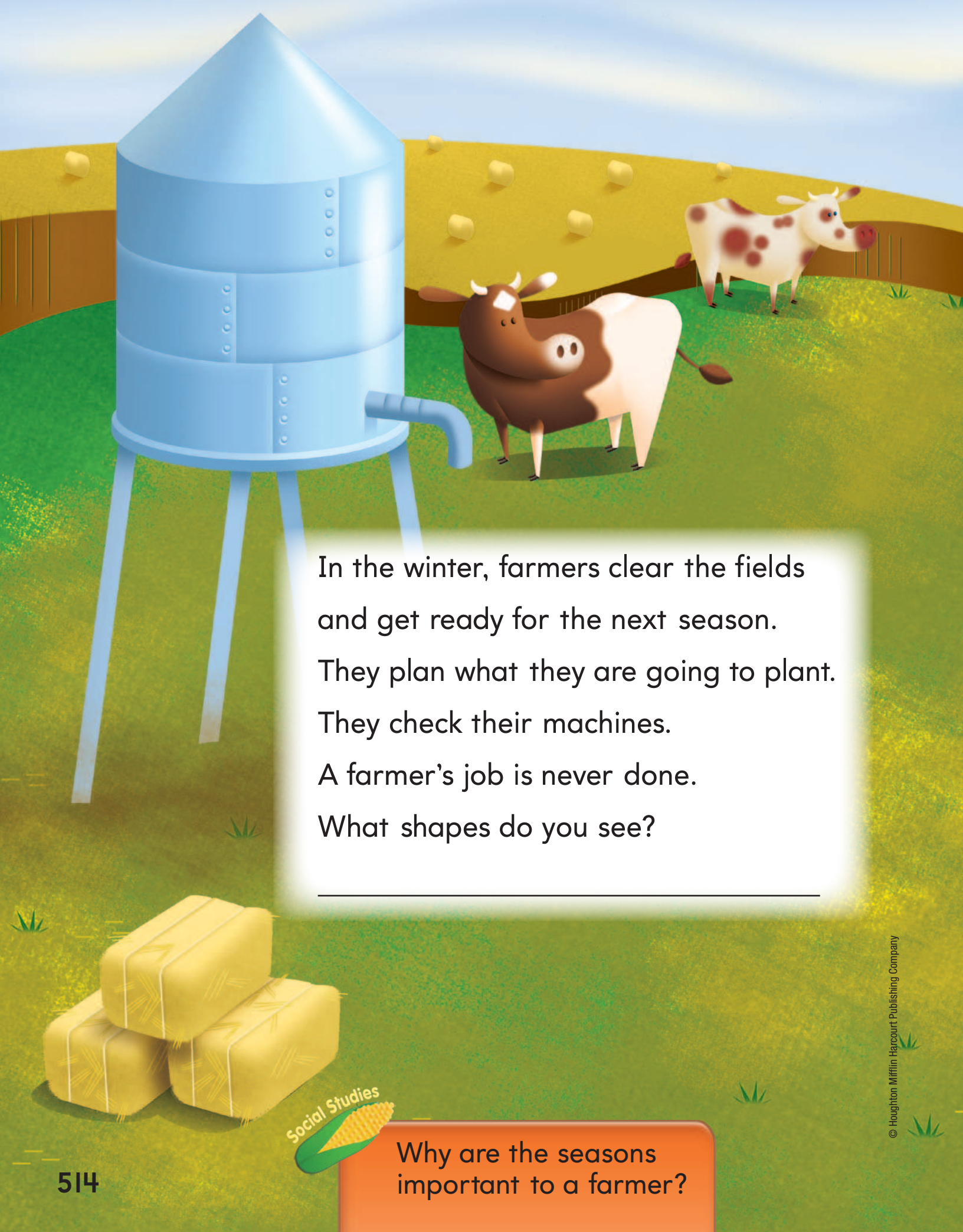

In the winter, farmers clear the fields and get ready for the next season. They plan what they are going to plant. They check their machines. A farmer's job is never done.

What shapes do you see?

_____

Social Studies

Why are the seasons important to a farmer?

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Name _____

Write About the Story

Look at the pictures of the farm objects. Draw a picture and write your own story about the objects. Tell about the shapes that the objects look like.

Vocabulary Review

cylinder	cube
cone	circle
sphere	triangle
square	rectangle
rectangular prism	

WRITE Math

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What shape do you see?

Draw a line to match the shape with the name.

cylinder

rectangular prism

circle

Circle each shape that has a curved surface.

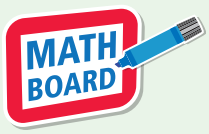
cylinder

rectangular prism

cube

cone

sphere



Write a riddle about a shape. Ask a classmate to read the riddle and name the shape.

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Chapter 11

Geometry and Fraction Concepts

Curious about Math

Hot air rises. A balloon filled with hot air will float up into the sky.

Some balloons look as though they have two-dimensional shapes on them. Name some two-dimensional shapes. Then draw some examples of them.

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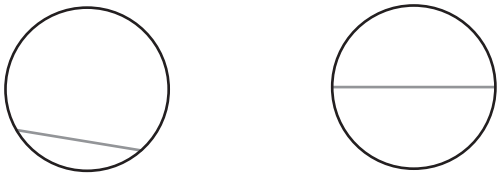
Name _____

Show What You Know

Equal Parts

Circle the shape that has two equal parts.

1.



2.

Identify Three-Dimensional Shapes

3. Circle each .

4. Circle each .

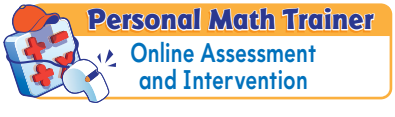
Identify Shapes

Circle all the shapes that match the shape name.

5. triangle

6. rectangle

This page checks understanding of important skills needed for success in Chapter 11.



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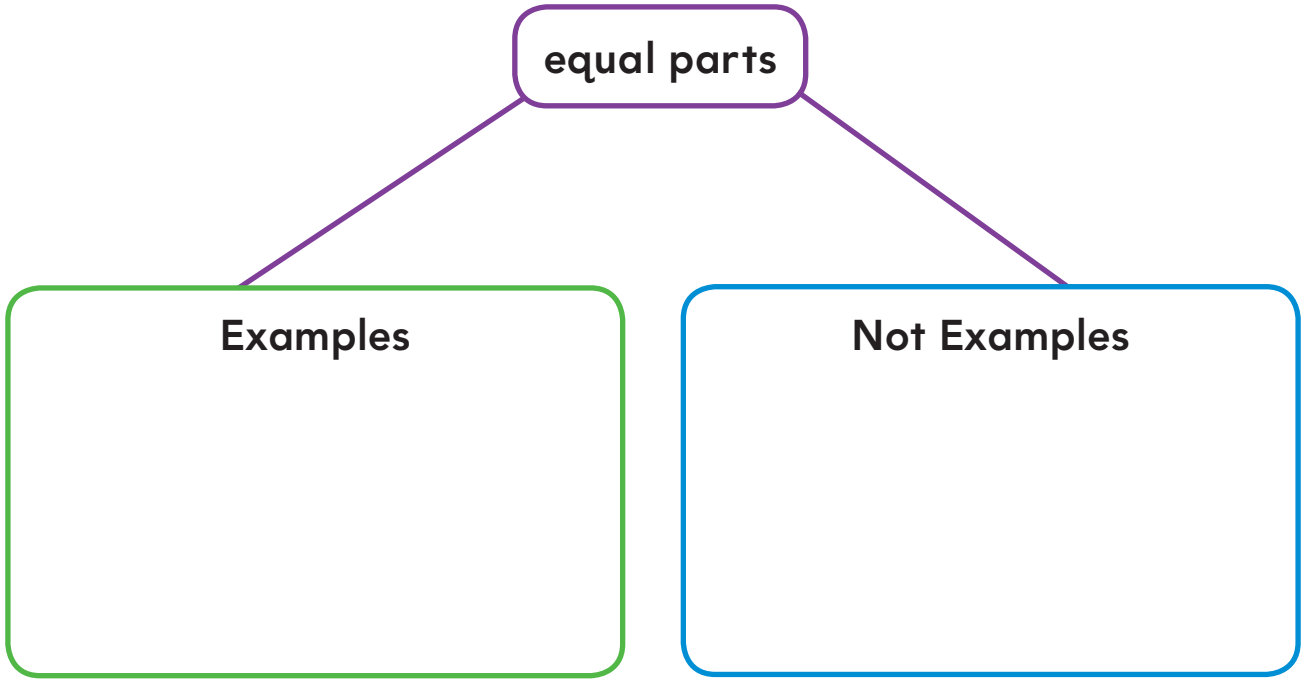
Name _____

Vocabulary Builder

Review Words
equal parts
shape
rectangle
triangle
square

Visualize It

Draw pictures to complete the graphic organizer.



Understand Vocabulary

Draw a **shape** to match the shape name.

rectangle	triangle	square

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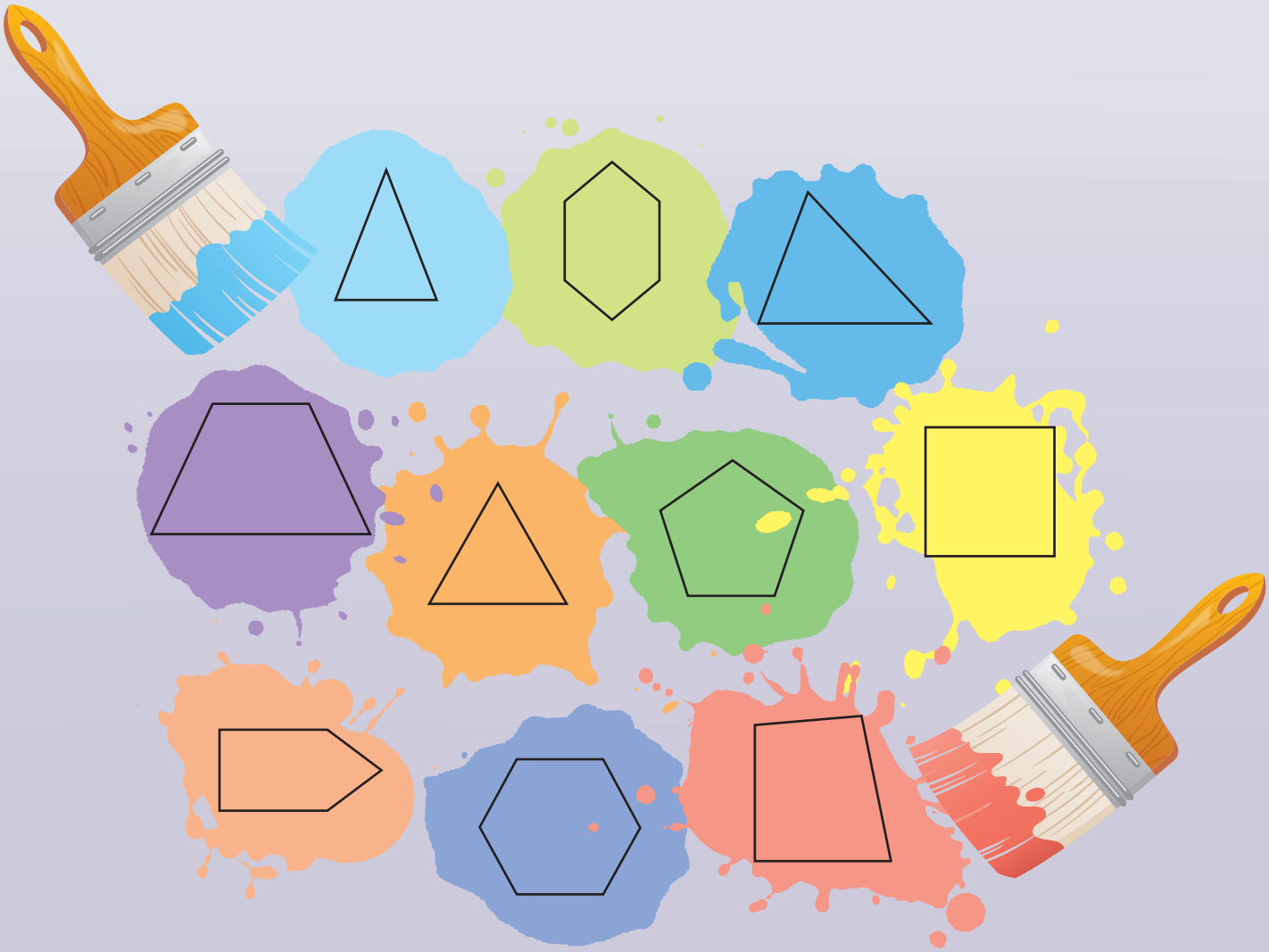
Game

Count the Sides

Materials • 1 • 10 • 10

Play with a partner.

1. Toss the . If you toss a 1 or a 2, toss the again.
2. Look for a shape that has the same number of sides as the number you tossed.
3. **Put one of your counters on that shape.**
4. **Take turns. Cover all the shapes. The player with more counters on the board wins.**



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Name _____

Three-Dimensional Shapes

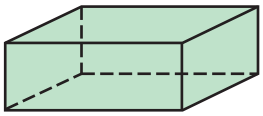
Essential Question What objects match three-dimensional shapes?

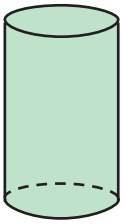
Geometry–2.G.1

MATHEMATICAL PRACTICES
MP.6

Listen and Draw

Draw a picture of an object with the same shape shown.





Math Talk Mathematical Practices

Describe how the shapes are alike.
Describe how they are different.

FOR THE TEACHER • Have children look at the first shape and name some real objects that have this shape, such as a cereal box. Have each child draw a picture of a real-life object that has the same shape. Repeat for the second shape.

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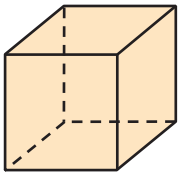
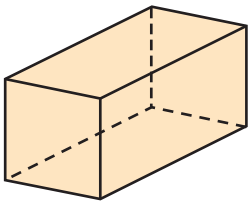
Model and Draw

These are three-dimensional shapes.

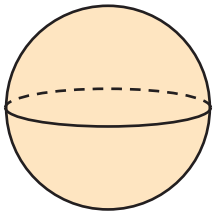
cube



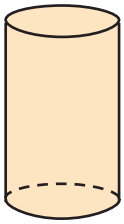
rectangular prism



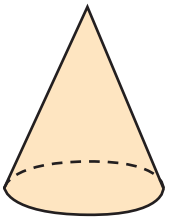
sphere



cylinder



cone



Which of these objects has the shape of a cube?

Share and Show

MATH BOARD

Circle the objects that match the shape name.

1. sphere

2. cube

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Name _____

On Your Own

Circle the objects that match the shape name.

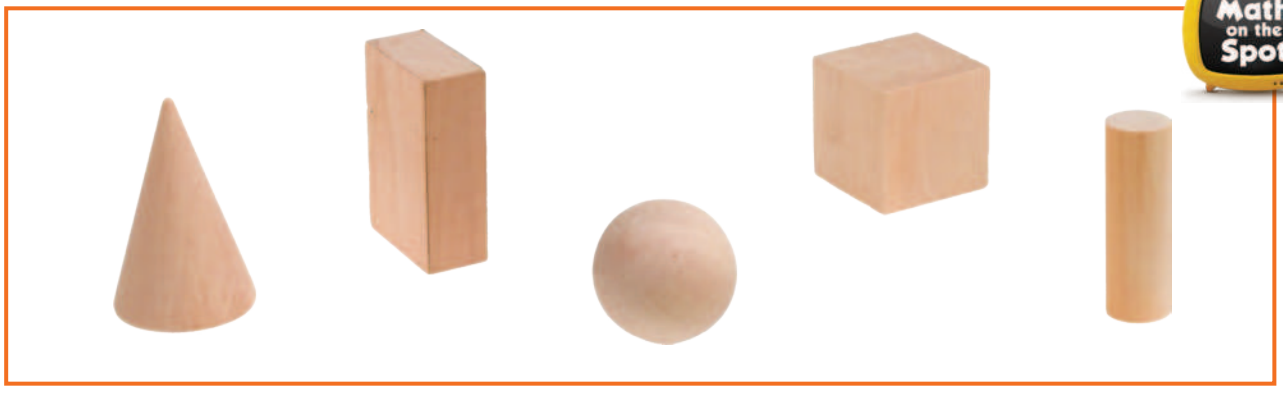
3. cylinder

4. rectangular prism

5. cone

6. cube

7. THINK SMARTER Circle the shapes that have a curved surface. Draw an X on the shapes that do not have a curved surface.



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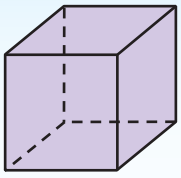
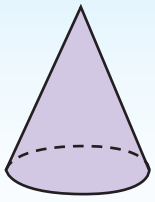
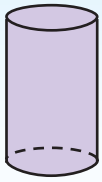
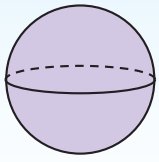
Problem Solving • Applications (Real World) WRITE Math

8. MATHEMATICAL PRACTICE 6 **Make Connections**

Reba traced around the bottom of each block. Match each block with the shape Reba drew.

9. THINK SMARTER Match the shapes.

TAKE HOME ACTIVITY • Ask your child to name an object that has the shape of a cube.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Attributes of Three-Dimensional Shapes

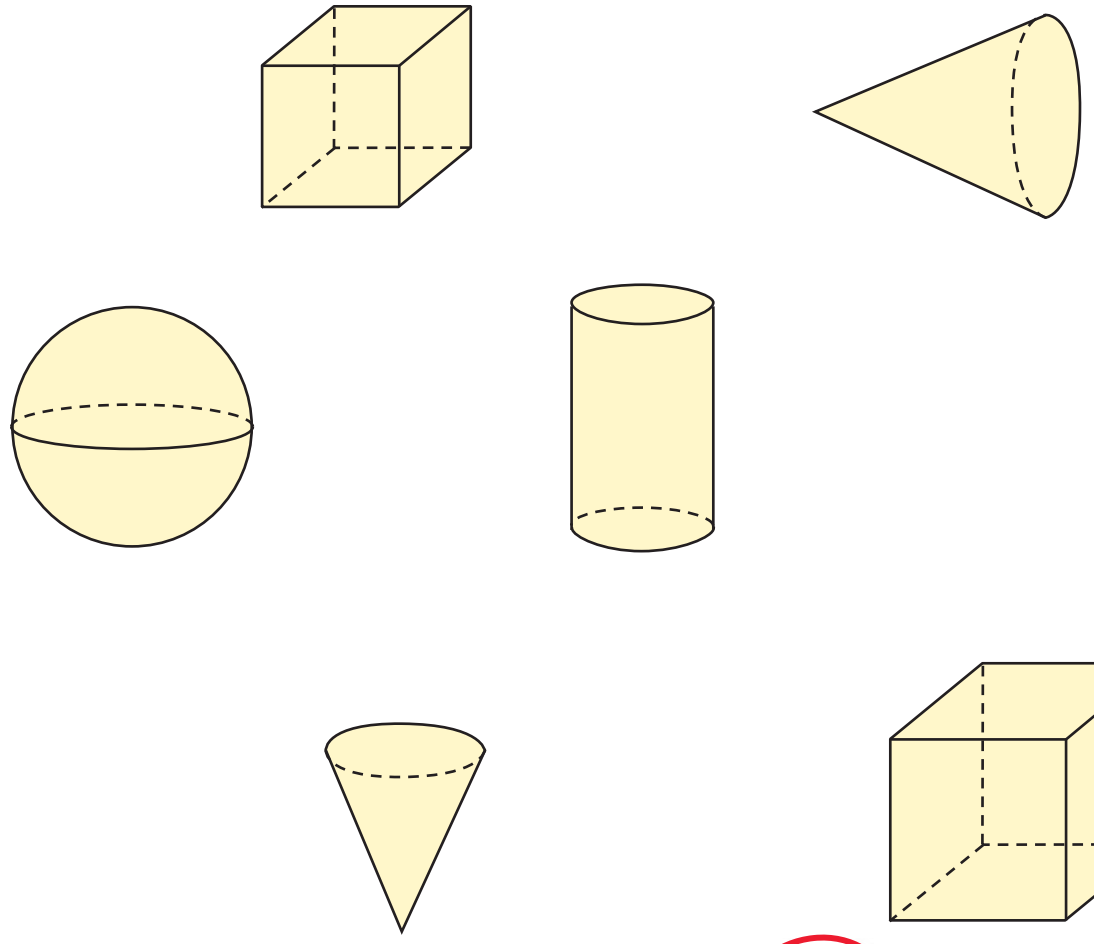
Essential Question How would you describe the faces of a rectangular prism and the faces of a cube?

Geometry—2.G.1

MATHEMATICAL PRACTICES
MP.4, MP.5, MP.6

Listen and Draw

Circle the cones. Draw an X on the sphere.



Math Talk Mathematical Practices

Name the other shapes on this page. **Describe** how they are different.

HOME CONNECTION • Your child identified the shapes on this page to review some of the different kinds of three-dimensional shapes.

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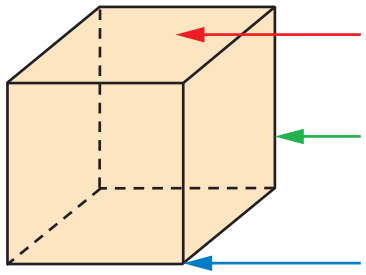
Model and Draw

The **faces** of a cube are squares.

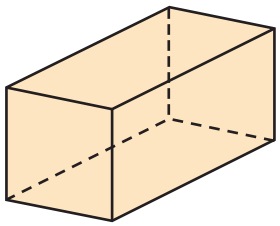
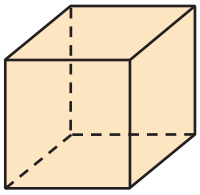


The **vertices** are the corner points of the cube.

Share and Show

MATH BOARD

Write how many for each.

	faces	edges	vertices
1.  rectangular prism	_____	_____	_____
2.  cube	_____	_____	_____

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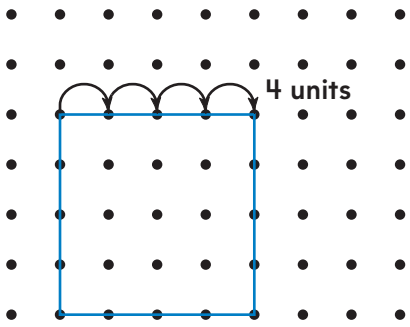
Name _____

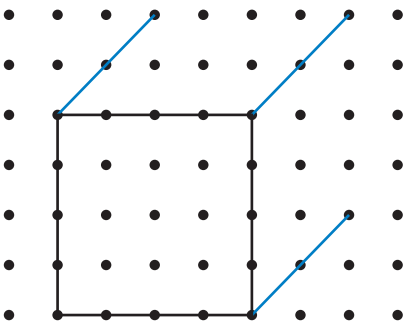
On Your Own

3. GO DEEPER Use dot paper. Follow these steps to draw a cube.

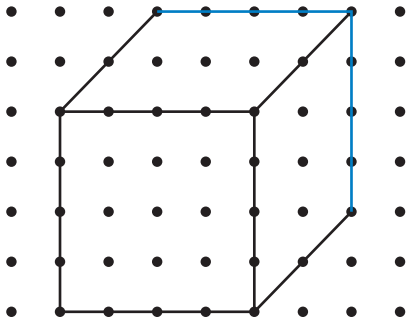
Step 1 Draw a square. Make each side 4 units long.



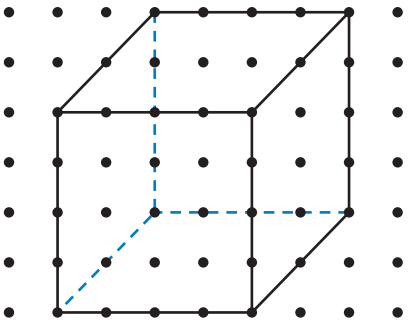
Step 2 Draw edges from 3 vertices, like this.



Step 3 Draw 2 more edges.



Step 4 Draw 3 dashed edges to show the faces that are not seen.



4. THINK SMARTER Trace all the faces of a rectangular prism on a sheet of paper. Write to tell about the shapes that you drew.

_____

_____

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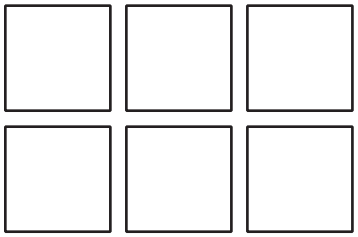
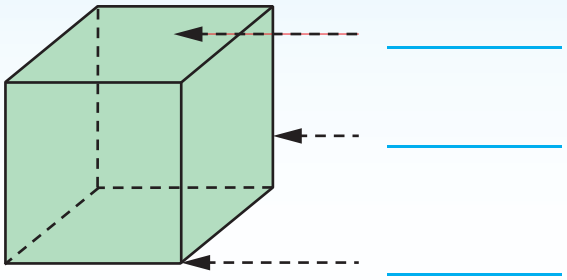
Problem Solving • Applications (Real World) WRITE Math

5. MATHEMATICAL PRACTICE 6 **Make Connections** Marcus traced around the faces of a three-dimensional shape. Circle the name of the shape he used.



cylinder
cube
sphere
cone

6. THINK SMARTER Use the words on the tiles to label the parts of the cube.



edge face vertex

Describe the faces of a cube.

_____

_____

TAKE HOME ACTIVITY • Have your child tell you about the faces on a cereal box or another kind of box.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Build Three-Dimensional Shapes

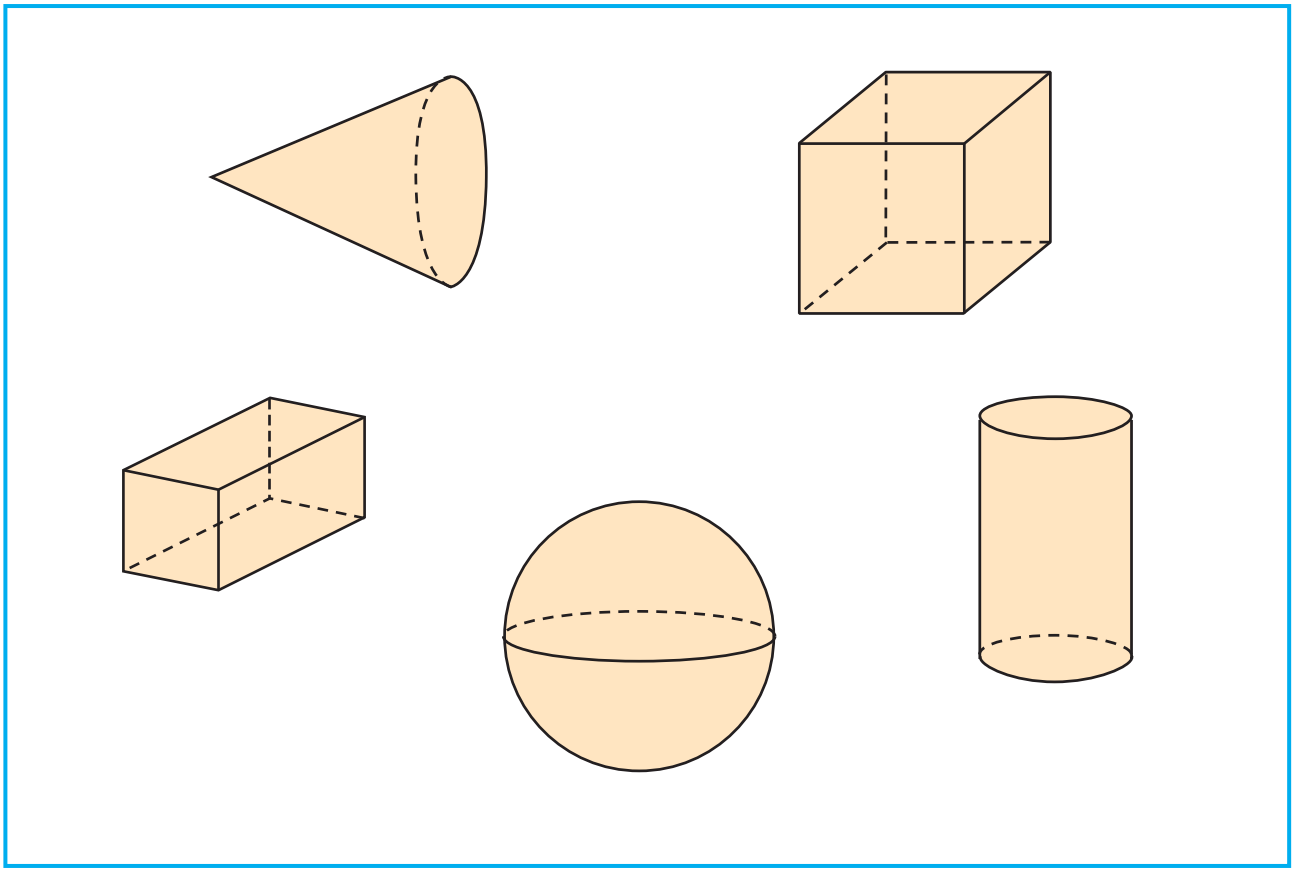
Essential Question How can you build a rectangular prism?

Geometry—2.G.1

MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Circle the shapes with curved surfaces. Draw an X on the shapes with flat surfaces.



Math Talk Mathematical Practices

Name the shapes you drew an X on. **Describe** how they are different.

HOME CONNECTION • Your child sorted the shapes on this page using the attributes of the shapes.

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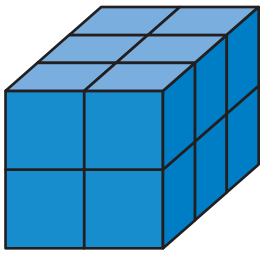
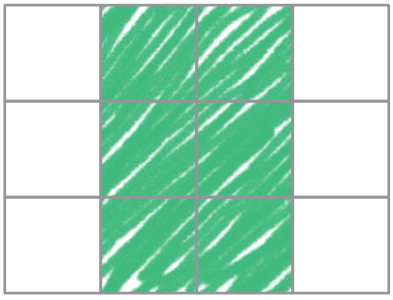
Model and Draw

Build this rectangular prism using 12 unit cubes.

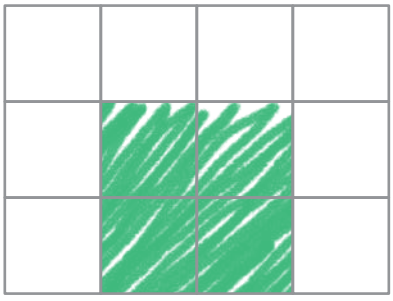


The shading shows the top and front views.

top view



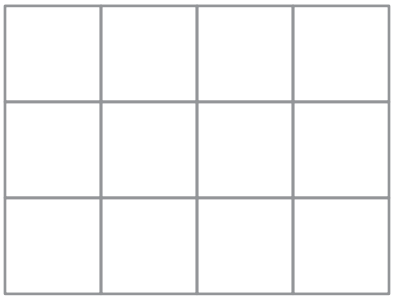
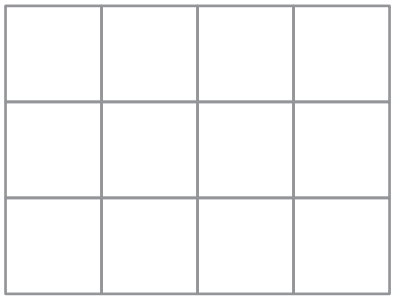
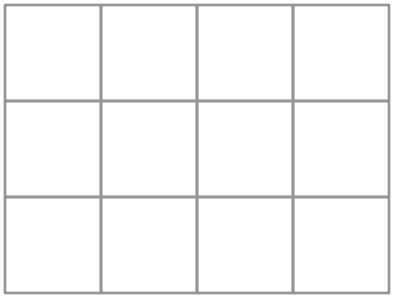
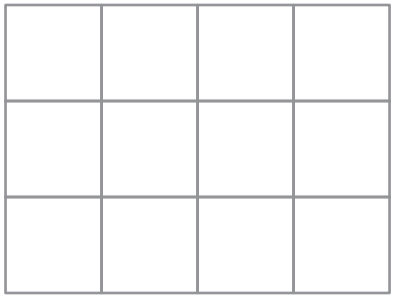
front view



Share and Show

MATH BOARD

Build a rectangular prism with the given number of unit cubes. Shade to show the top and front views.

	top view	front view
1. 9 unit cubes		
2. 16 unit cubes		

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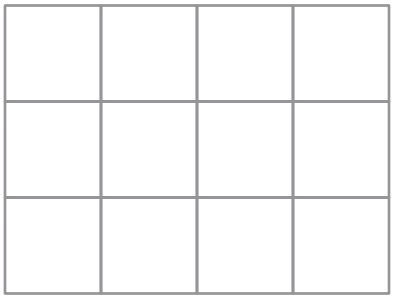
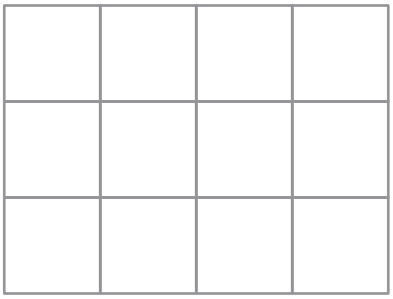
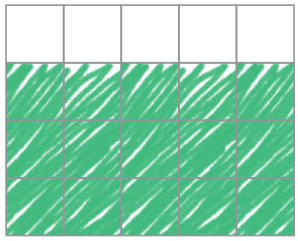
Name _____

On Your Own

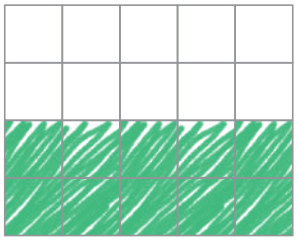
Build a rectangular prism with the given number of unit cubes. Shade to show the top and front views.

	top view	front view
3. 24 unit cubes		

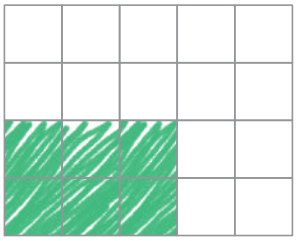
4. THINK SMARTER The top, side, and front views of a rectangular prism are shown. Build the prism. How many unit cubes are used to build the solid?



top view



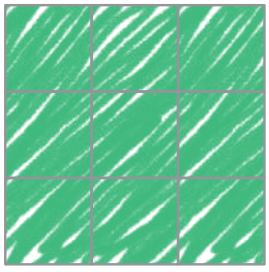
front view



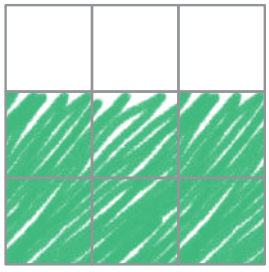
side view

_____ unit cubes

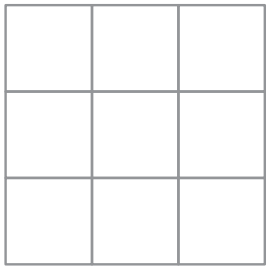
5. MATHEMATICAL PRACTICE 1 **Analyze** Jen uses 18 cubes to build a rectangular prism. The top and front views are shown. Shade to show the side view.



top view



front view



side view

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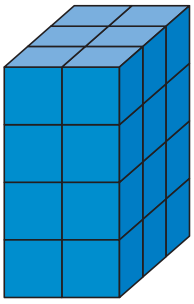
Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

6. GO DEEPER Tomas built this rectangular prism. How many unit cubes did he use?



_____ cubes

---

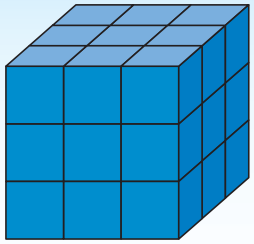
7. MATHEMATICAL PRACTICE 7 **Look for Structure**

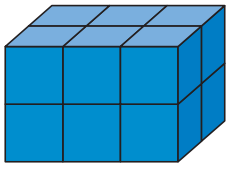
Theo builds the first layer of a rectangular prism using 4 cubes. He adds 3 more layers of 4 cubes each. How many cubes are used for the prism?

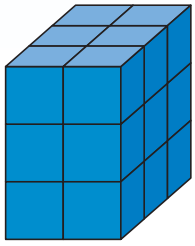
_____ cubes

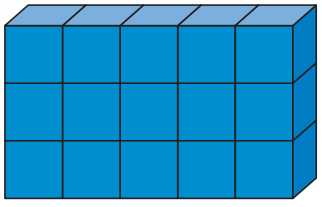
Personal Math Trainer

8. THINK SMARTER + Tyler built this rectangular prism using unit cubes. Then he took it apart and used all of the cubes to build two new prisms. Fill in the bubble next to the two prisms he built.



○ 

○ 

○ 

TAKE HOME ACTIVITY • Ask your child to show how he or she solved an exercise in the lesson.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Two-Dimensional Shapes

Essential Question What shapes can you name just by knowing the number of sides and vertices?

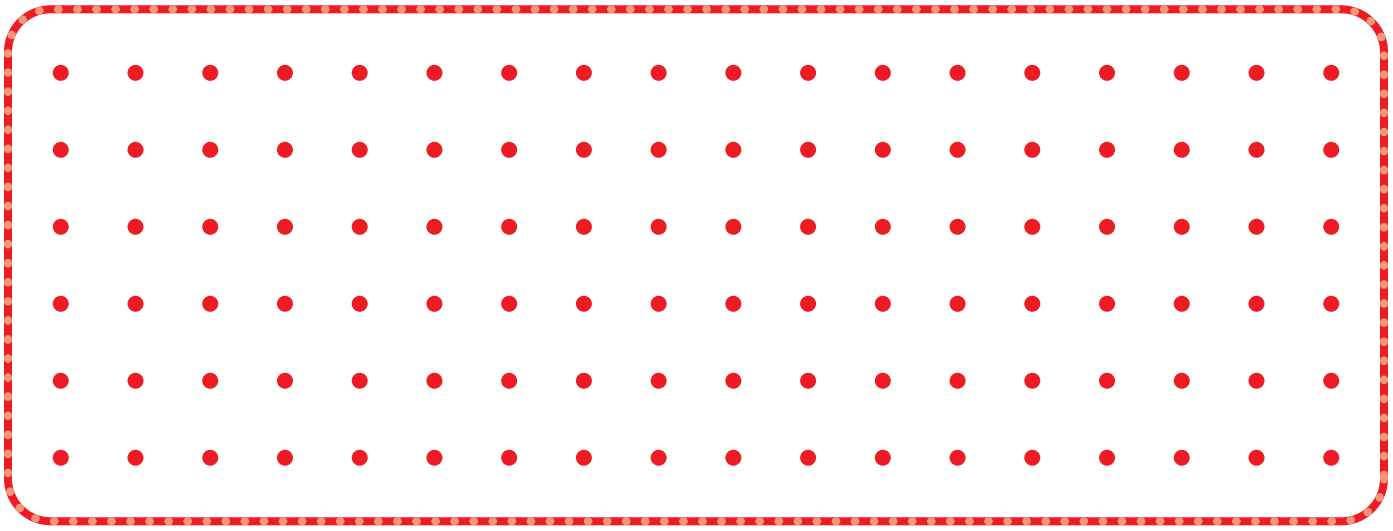
Geometry—2.G.1

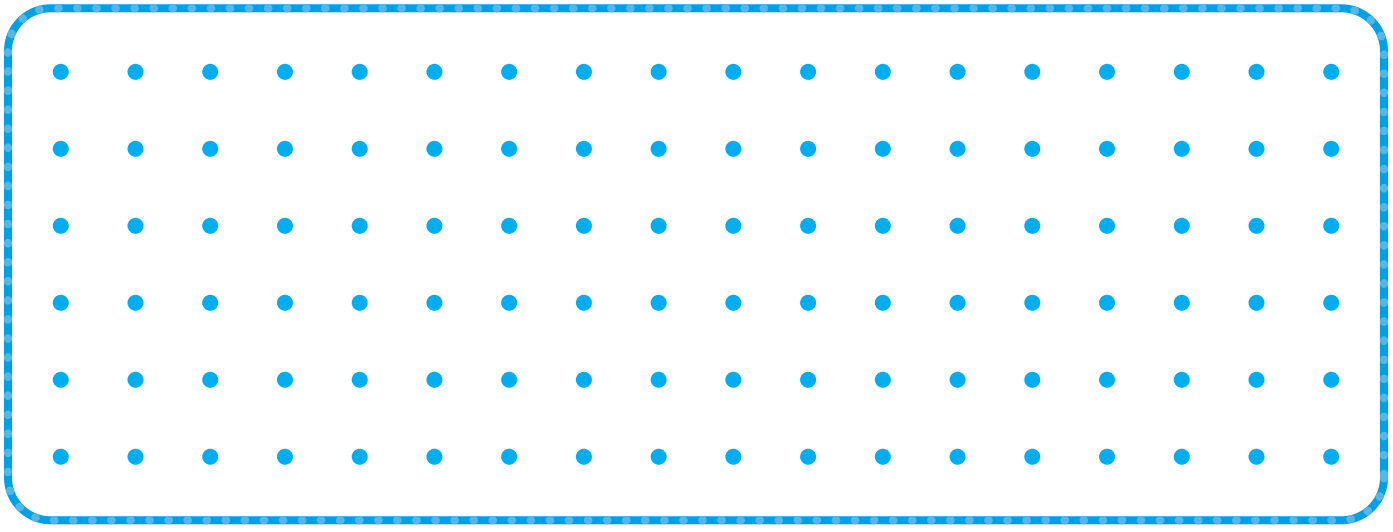
MATHEMATICAL PRACTICES
MP.4, MP.7

Listen and Draw

Hands On

Use a ruler. Draw a shape with 3 straight sides. Then draw a shape with 4 straight sides.





Math Talk **Mathematical Practices**

Describe how your shapes are different from the shapes a classmate drew.

FOR THE TEACHER • Have children use rulers as straight edges for drawing the sides of shapes. Have children draw a two-dimensional shape with 3 sides and then a two-dimensional shape with 4 sides.

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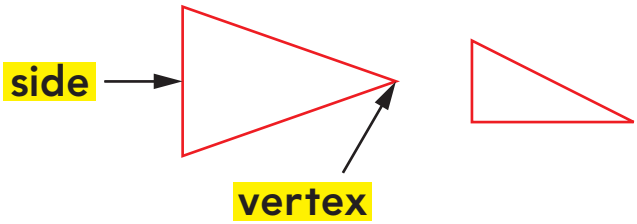
Model and Draw

You can count **sides** and **vertices** to name two-dimensional shapes. Look at how many sides and vertices each shape has.

triangle



3 sides

3 vertices

quadrilateral

4 sides

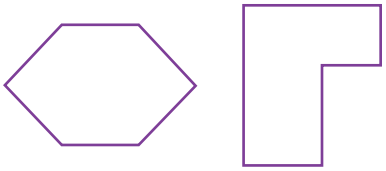
____ vertices

pentagon

____ sides

____ vertices

hexagon



____ sides

____ vertices

Share and Show

MATH BOARD

Write the number of sides and the number of vertices.

1. triangle

____ sides

____ vertices

2. hexagon

____ sides

____ vertices

3. pentagon

____ sides

____ vertices

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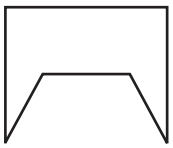
Name _____

On Your Own

Write the number of sides and the number of vertices. Then write the name of the shape.

pentagon
triangle
hexagon
quadrilateral

4.

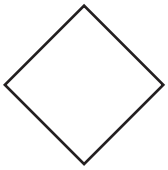


_____ sides

_____ vertices

_____

5.

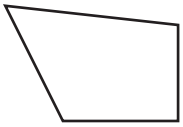


_____ sides

_____ vertices

_____

6.

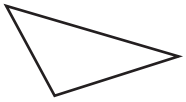


_____ sides

_____ vertices

_____

7.

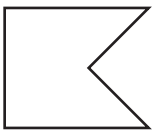


_____ sides

_____ vertices

_____

8.

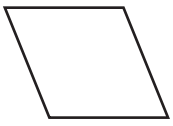


_____ sides

_____ vertices

_____

9.



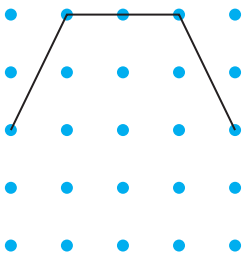
_____ sides

_____ vertices

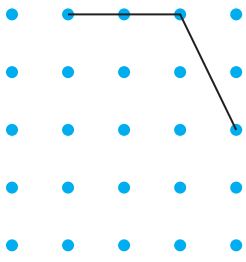
_____

GO DEEPER Draw more sides to make the shape.

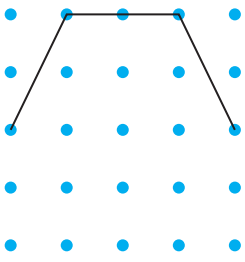
10. pentagon



11. quadrilateral



12. hexagon



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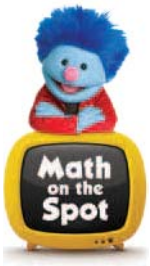
Problem Solving • Applications (Real World) WRITE Math

Solve. Draw or write to explain.

13. THINK SMARTER Alex draws a hexagon and two pentagons. How many sides does Alex draw altogether?

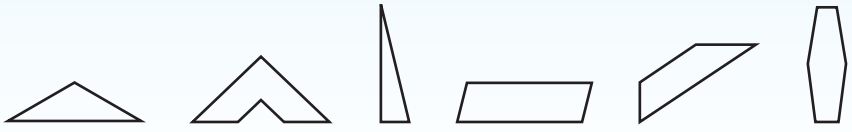


_____ sides

14. MATHEMATICAL PRACTICE 4 **Use Diagrams**

Ed draws a shape that has 4 sides. It is not a square. It is not a rectangle. Draw a shape that could be Ed's shape.

15. THINK SMARTER Count the sides and vertices of each two-dimensional shape. Draw each shape where it belongs in the chart.



Quadrilateral	Hexagon	Triangle

TAKE HOME ACTIVITY • Ask your child to draw a shape that is a quadrilateral.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Angles in Two-Dimensional Shapes

Essential Question How do you find and count angles in two-dimensional shapes?

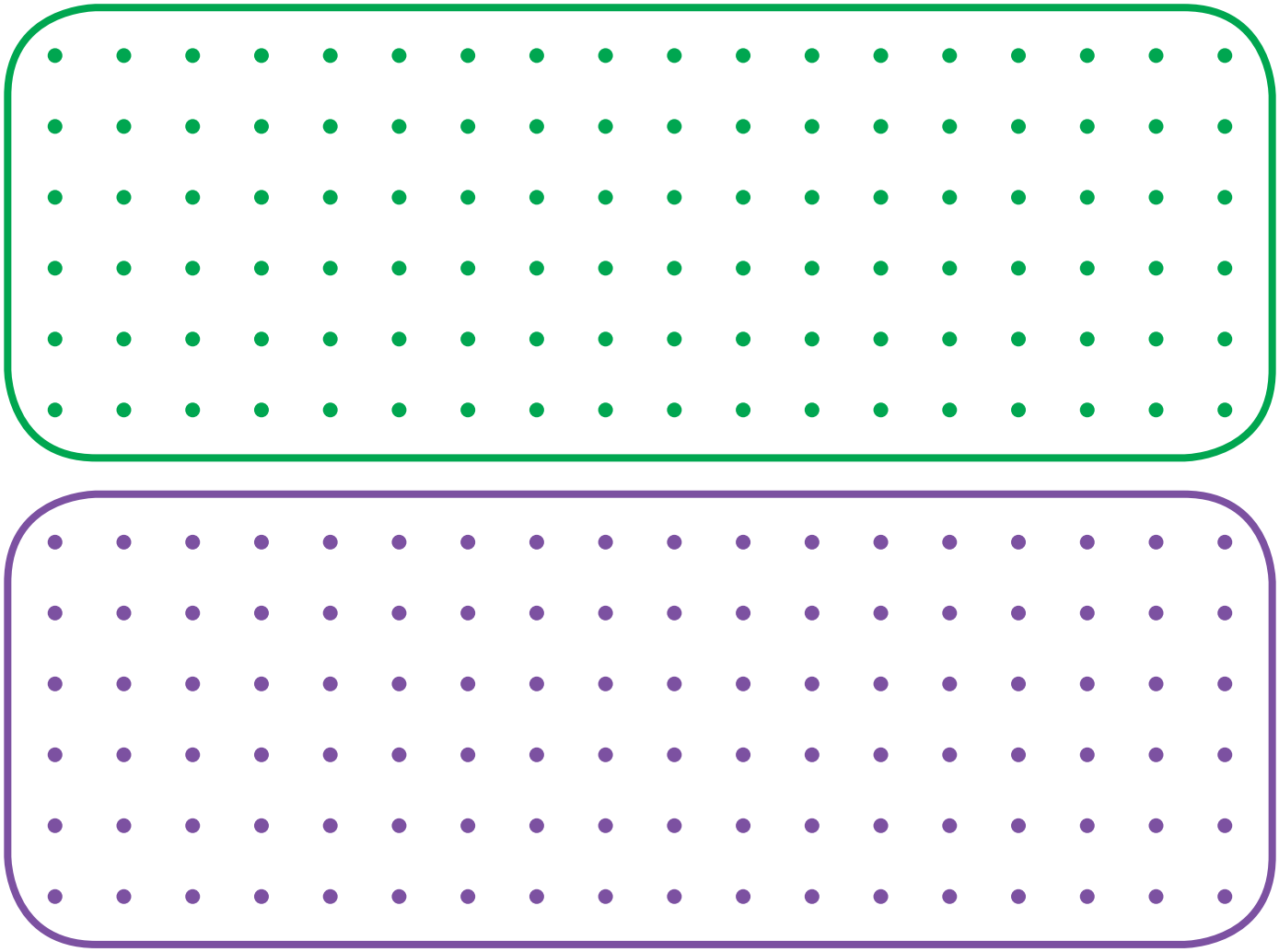
Geometry—2.G.1

MATHEMATICAL PRACTICES
MP.4, MP.6, MP.7

Listen and Draw

Hands On

Use a ruler. Draw two different triangles. Then draw two different rectangles.



FOR THE TEACHER • Have children use pencils and rulers (or other straight edges) to draw the shapes. Have them draw two different triangles in the green box and two different rectangles in the purple box.

Math Talk Mathematical Practices

Describe a triangle and a rectangle. Tell about their sides and vertices.

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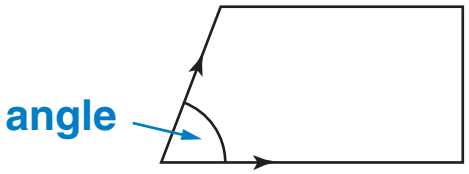
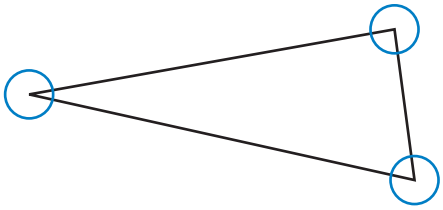
Model and Draw

When two sides of a shape meet, they form an **angle**.



This shape has 3 angles.

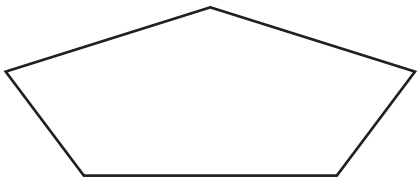


Share and Show

MATH BOARD

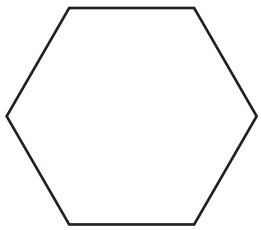
Circle the angles in each shape.
Write how many.

1.



_____ angles

2.

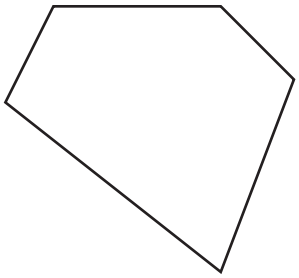


_____ angles

3.

_____ angles

4.



_____ angles

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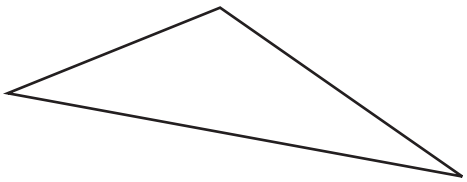
Name _____

On Your Own

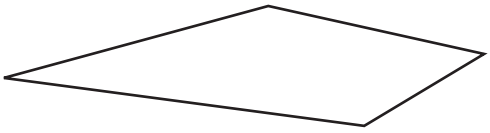
Circle the angles in each shape. Write how many.

5.



_____ angles

6.

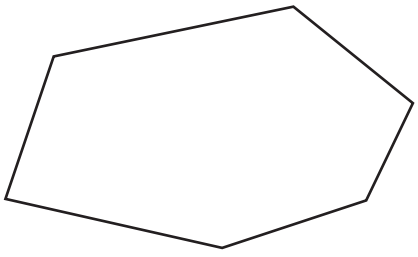


_____ angles

7.

_____ angles

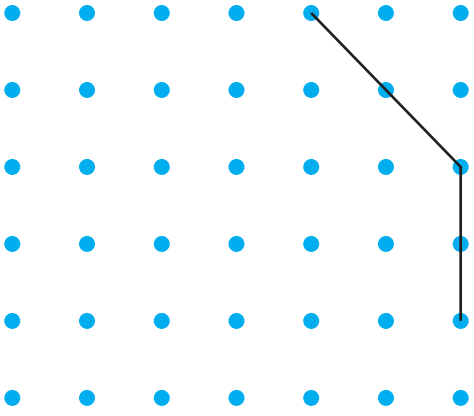
8.



_____ angles

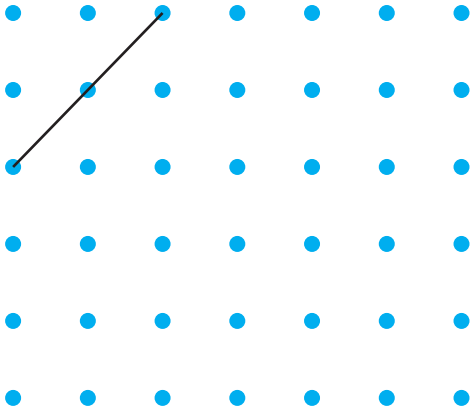
9. THINK SMARTER Draw more sides to make the shape. Write how many angles.

pentagon



_____ angles

quadrilateral



_____ angles

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Problem Solving • Applications (Real World) WRITE Math

10. Draw two shapes that have 7 angles in all.

11. MATHEMATICAL PRACTICE 1 **Use Diagrams**

Ben drew 3 two-dimensional shapes that had 11 angles in all. Draw shapes Ben could have drawn.

12. THINK SMARTER Fill in the bubble next to all the shapes that have 5 angles.

TAKE HOME ACTIVITY • Ask your child to draw a shape with 4 sides and 4 angles.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Sort Two-Dimensional Shapes

Essential Question How do you use the number of sides and angles to sort two-dimensional shapes?

Geometry—2.G.1

MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Hands On

Make the shape with pattern blocks. Draw and color the blocks you used.

Use one block.

Use two blocks.

Use three blocks.

FOR THE TEACHER • Tell children that the shape shown three times on the page is a trapezoid. Have children use pattern blocks to make the trapezoid three times: with one pattern block, with two pattern blocks, and then with three pattern blocks.

Math Talk

Mathematical Practices

Describe how you could sort the blocks you used.

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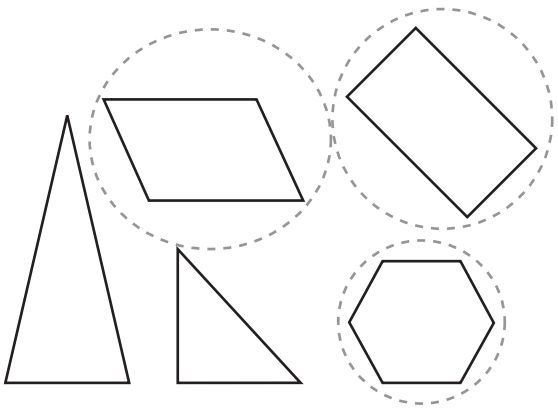
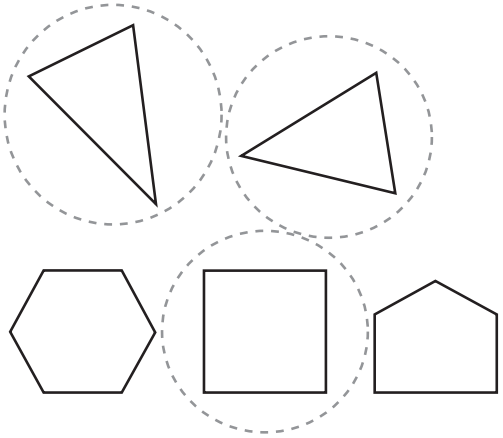
Model and Draw

Which shapes match the rule?

Shapes with more than 3 sides



Shapes with fewer than 5 angles

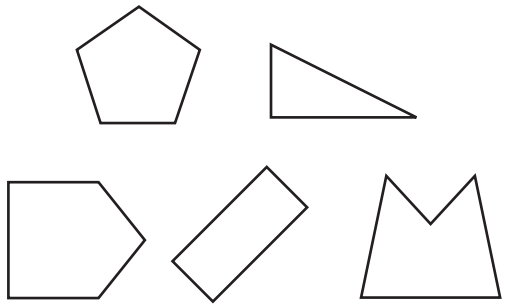


Share and Show

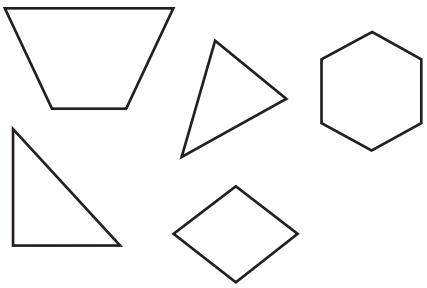
MATH BOARD

Circle the shapes that match the rule.

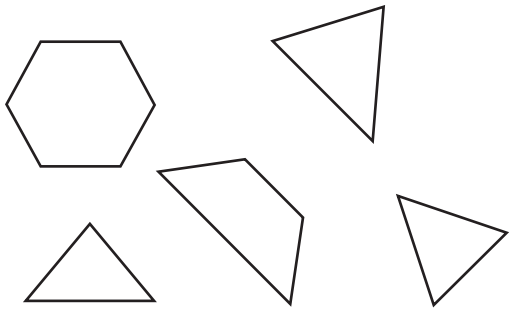
1. Shapes with 5 sides



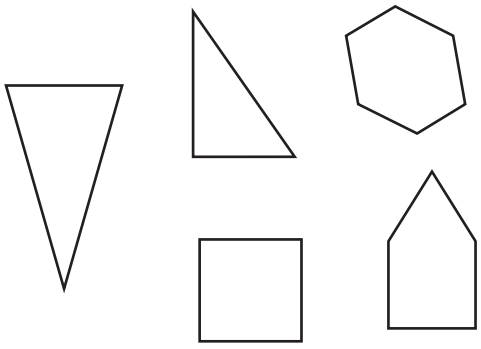
2. Shapes with more than 3 angles



3. Shapes with fewer than 4 angles



4. Shapes with fewer than 5 sides



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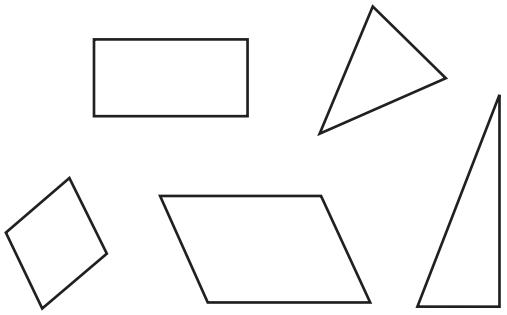
Name _____

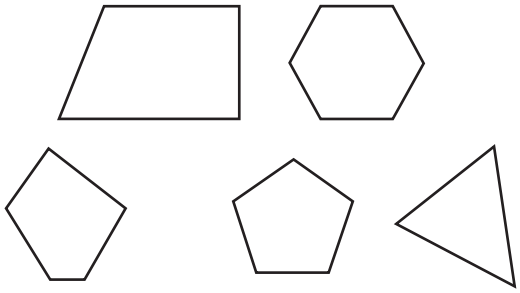
On Your Own

Circle the shapes that match the rule.

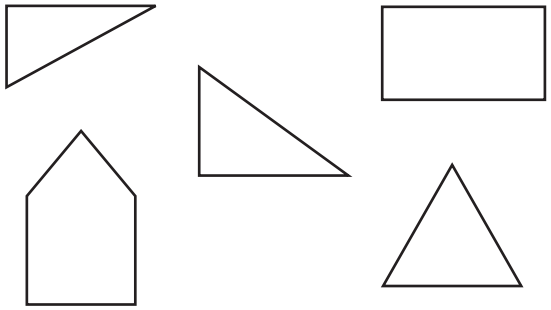
5. Shapes with 4 sides



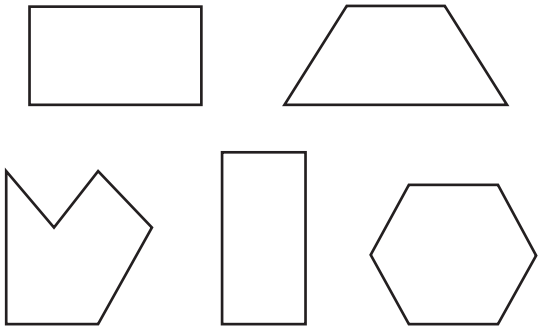
6. Shapes with more than 4 angles



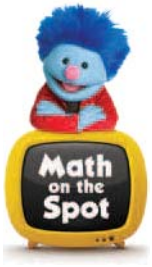
7. Shapes with fewer than 4 angles



8. Shapes with fewer than 5 sides



9. THINK SMARTER Draw three shapes that match the rule. Circle them. Then draw two shapes that do not match the rule.



Shapes with fewer than 5 angles

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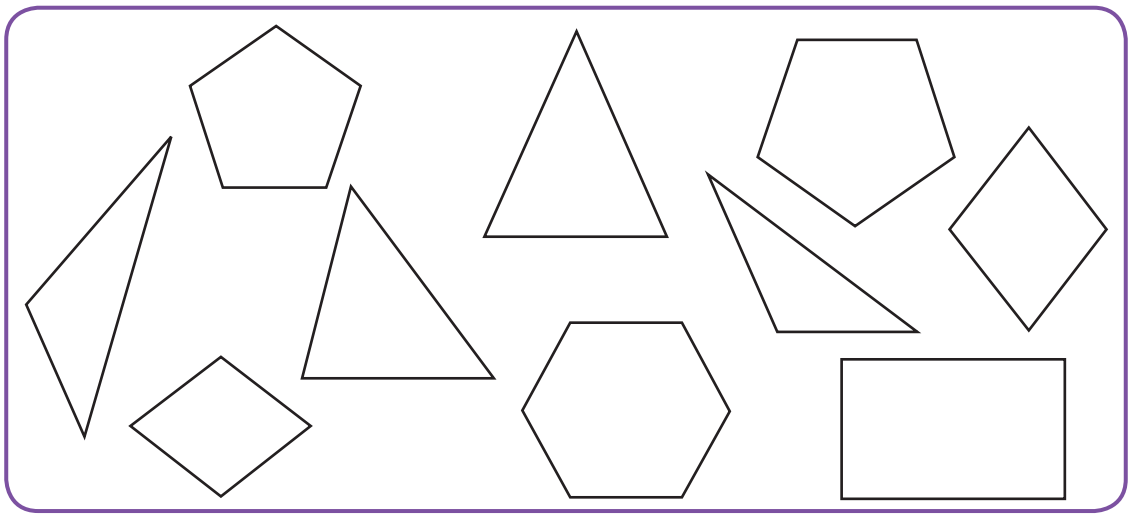
Problem Solving • Applications (Real World) WRITE Math

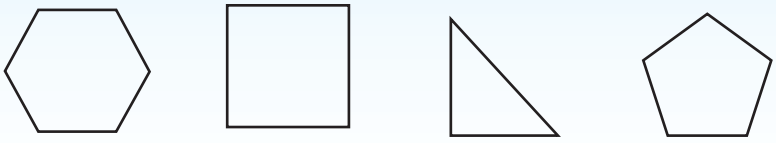
10. MATHEMATICAL PRACTICE 6 Make Connections

Sort the shapes.

- Use red to color the shapes with more than 4 sides.
- Use blue to color the shapes with fewer than 5 angles.



11. THINK SMARTER Draw each shape where it belongs in the chart.



Shapes with 4 or Fewer Sides	Shapes with More than 4 sides

TAKE HOME ACTIVITY • Ask your child to draw some shapes that each have 4 angles.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Partition Rectangles

Essential Question How do you find the total number of same-size squares that will cover a rectangle?

Geometry—2.G.2
Also 2.OA.4

MATHEMATICAL PRACTICES
MP.5, MP.8

Listen and Draw

Hands On

Put several color tiles together. Trace around the shape to draw a two-dimensional shape.

Math Talk **Mathematical Practices**

Is there a different shape that can be made with the same number of tiles? **Explain.**

HOME CONNECTION • After putting together tiles, your child traced around them to draw a two-dimensional shape. This activity is an introduction to partitioning a rectangle into several same-size squares.

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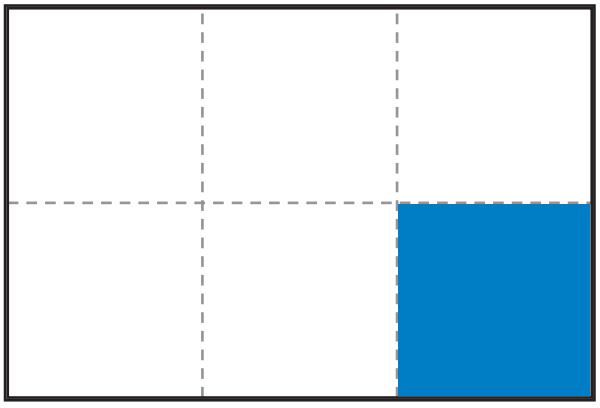
Model and Draw

Trace around color tiles. How many square tiles cover this rectangle?



Number of rows: 2

Number of columns: 3

Total: _____ square tiles

Share and Show

MATH BOARD

Use color tiles to cover the rectangle.
Trace around the square tiles. Write how many.

1.

Number of rows: _____

Number of columns: _____

Total: _____ square tiles

2.

Number of rows: _____

Number of columns: _____

Total: _____ square tiles

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Name _____

On Your Own

Use color tiles to cover the rectangle.
Trace around the square tiles. Write how many.

3.

Number of rows: _____

Number of columns: _____

Total: _____ square tiles

4.

Number of rows: _____

Number of columns: _____

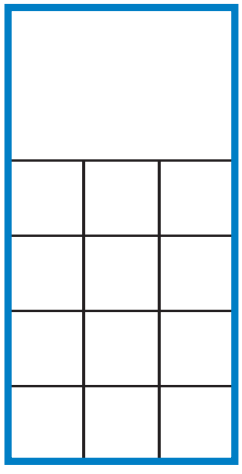
Total: _____ square tiles

5. THINK SMARTER Mary started to cover this rectangle with ones blocks. **Explain** how you would estimate the number of ones blocks that would cover the whole rectangle.

_____

_____

_____



TAKE HOME ACTIVITY • Have your child describe what he or she did in this lesson.

FOR MORE PRACTICE:
Standards Practice Book

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Name _____

Mid-Chapter Checkpoint

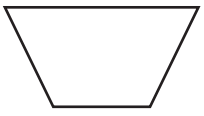
Concepts and Skills

Circle the objects that match the shape name. (2.G.1)

1. cylinder				
2. cube				

Write the number of sides and the number of vertices. (2.G.1)

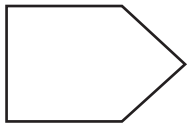
3. quadrilateral



_____ sides

_____ vertices

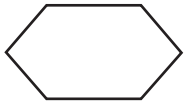
4. pentagon



_____ sides

_____ vertices

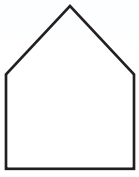
5. hexagon



_____ sides

_____ vertices

6. THINK SMARTER How many angles does this shape have? (2.G.1)



_____ angles

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Name _____

Equal Parts

Essential Question What are halves, thirds, and fourths of a whole?

Geometry—2.G.3

MATHEMATICAL PRACTICES
MP.6, MP.8

Listen and Draw

Hands On

Put pattern blocks together to match the shape of the hexagon. Trace the shape you made.

Math Talk Mathematical Practices

Describe how the shapes you used are different from the shapes a classmate used.

FOR THE TEACHER • Have children place a yellow hexagon pattern block on the workspace and make the same shape by using any combination of pattern blocks. Discuss how they know if the outline of the blocks they used is the same shape as the yellow hexagon.

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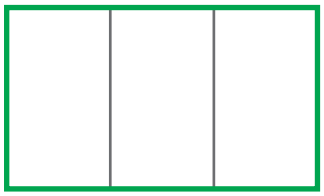
Model and Draw

The green rectangle is the whole.
It can be divided into equal parts.

There are 2 halves.
Each part is a half.



There are 3 thirds.
Each part is a third.

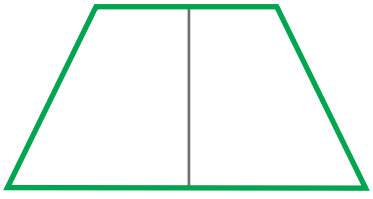
There are 4 fourths.
Each part is a fourth.

Share and Show

MATH BOARD

Write how many equal parts there are in the whole.
Write **halves**, **thirds**, or **fourths** to name the equal parts.

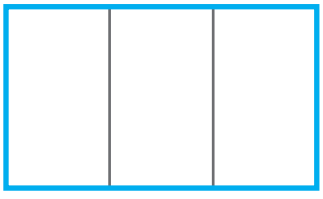
1.



_____ equal parts

_____

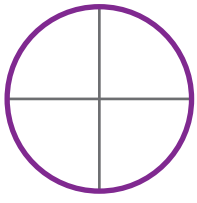
2.



_____ equal parts

_____

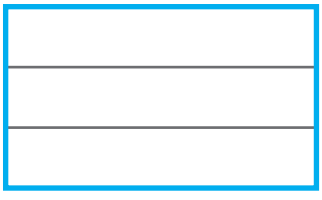
3.



_____ equal parts

_____

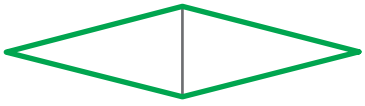
4.



_____ equal parts

_____

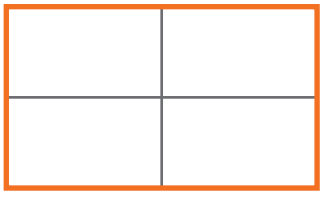
5.



_____ equal parts

_____

6.



_____ equal parts

_____

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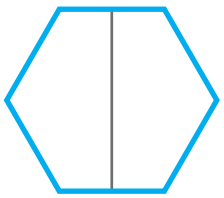
Name _____

On Your Own

Write how many equal parts there are in the whole.
Write **halves**, **thirds**, or **fourths** to name the equal parts.

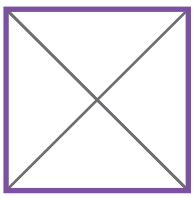
7.



_____ equal parts

_____

8.



_____ equal parts

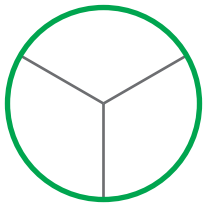
_____

9.

_____ equal parts

_____

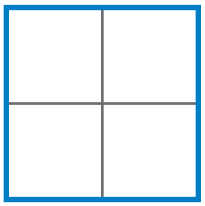
10.



_____ equal parts

_____

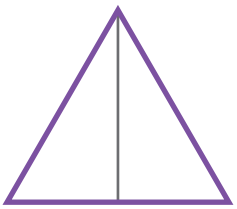
11.



_____ equal parts

_____

12.



_____ equal parts

_____

13. THINK SMARTER Draw to show halves. Explain how you know that the parts are halves.

_____

_____

_____

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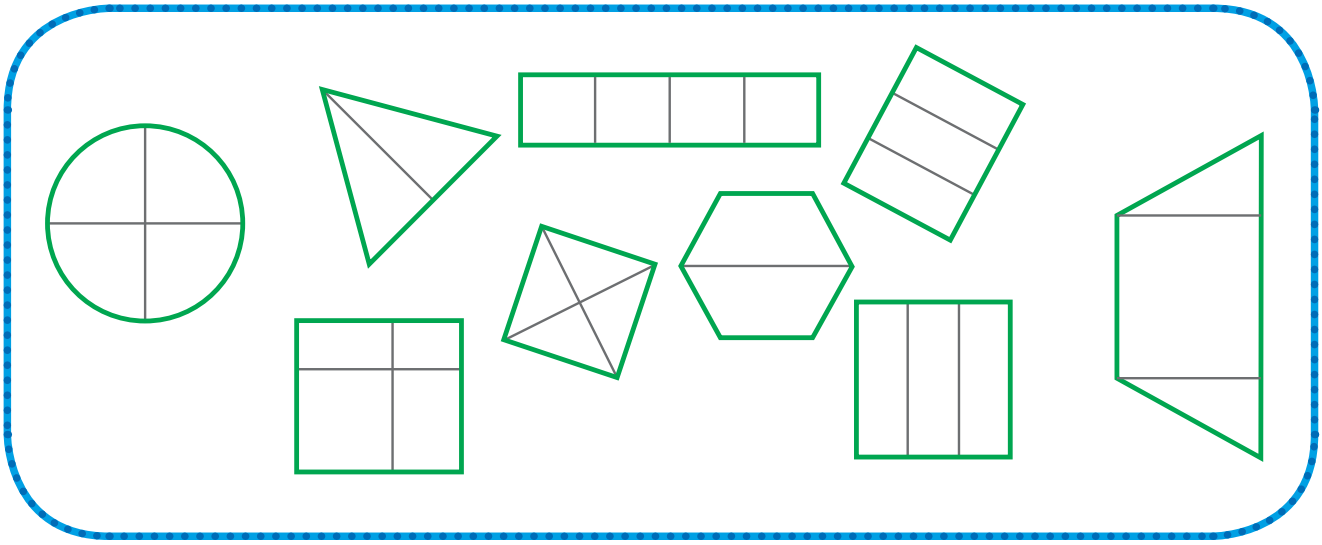
Problem Solving • Applications (Real World) WRITE Math

14. MATHEMATICAL PRACTICE 6 **Make Connections** Sort the shapes.

- Draw an X on shapes that do **not** show equal parts.
- Use red to color the shapes that show thirds.
- Use blue to color the shapes that show fourths.



Personal Math Trainer

15. THINK SMARTER + Draw lines to show fourths three different ways. Explain how you know that the parts are fourths.

Explain how you know that the parts are fourths.

_____

_____

TAKE HOME ACTIVITY • Ask your child to fold one sheet of paper into halves and another sheet of paper into fourths.

FOR MORE PRACTICE: Standards Practice Book

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Name _____

Show Equal Parts of a Whole

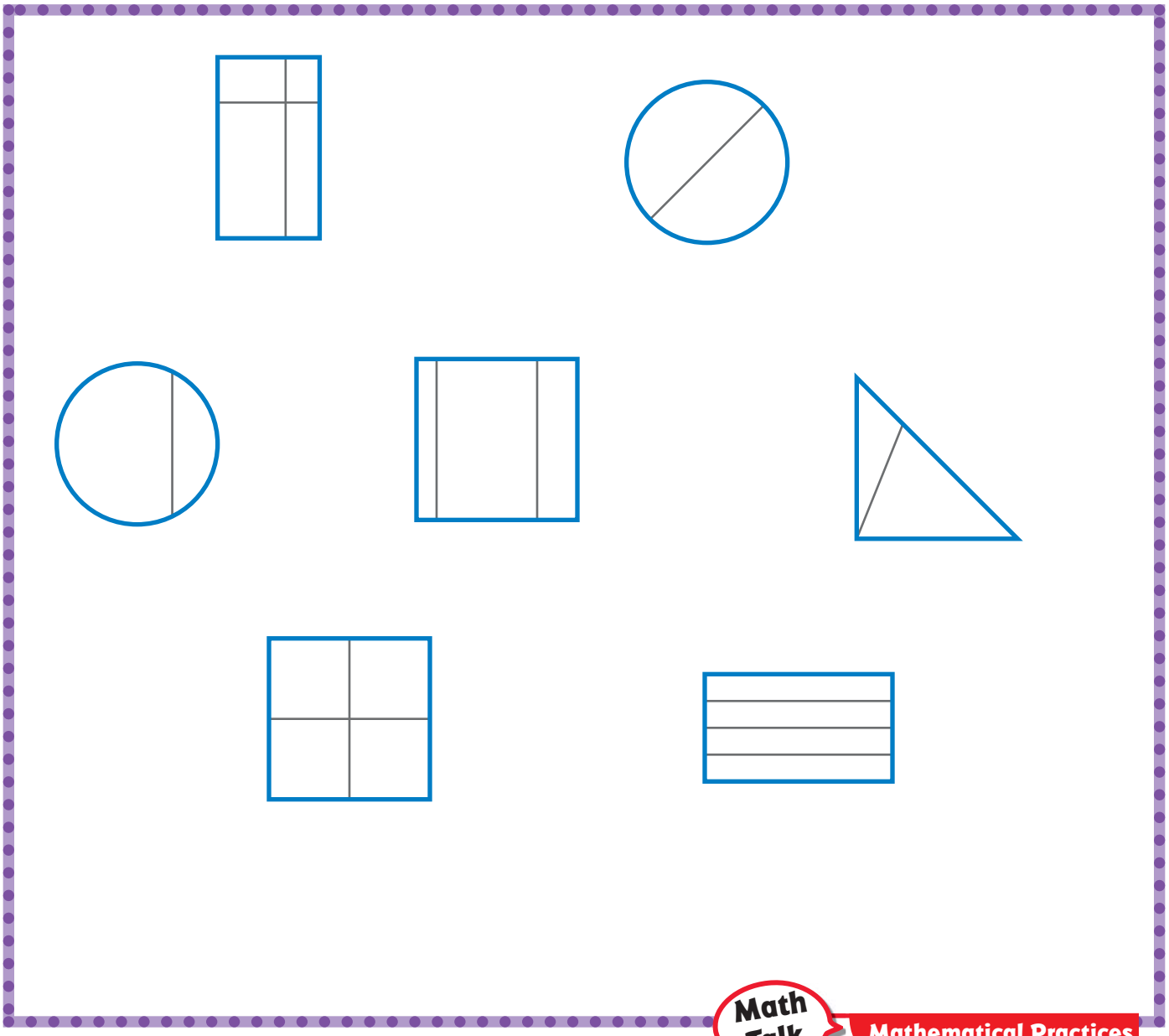
Essential Question How do you know if a shape shows halves, thirds, or fourths?

Geometry—2.G.3

MATHEMATICAL PRACTICES
MP.5, MP.6

Listen and Draw

Circle the shapes that show equal parts.



Math Talk Mathematical Practices

Does the triangle show halves? **Explain.**

HOME CONNECTION • Your child completed this sorting activity with shapes to review the concept of equal parts.

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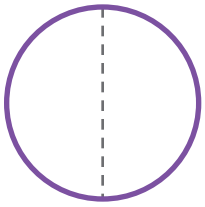
Model and Draw

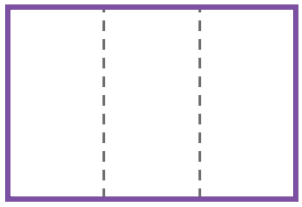
You can draw to show equal parts of a whole.

halves
2 equal parts



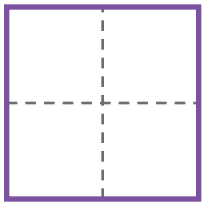
There are 2 halves in a whole.

thirds
3 equal parts



There are 3 thirds in a whole.

fourths
4 equal parts



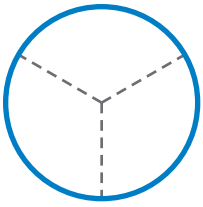
There are 4 fourths in a whole.

Share and Show

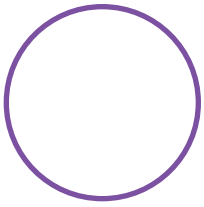
MATH BOARD

Draw to show equal parts.

1. thirds

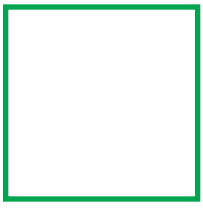


2. halves

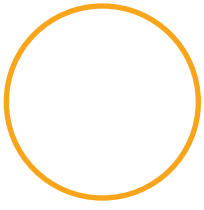


3. fourths

4. halves



5. fourths



6. thirds

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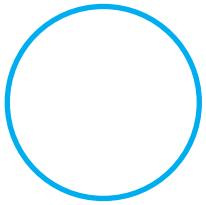
Name _____

On Your Own

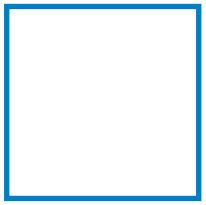
Draw to show equal parts.

7. halves



8. fourths

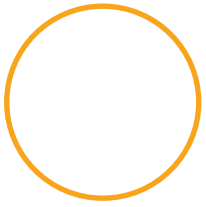
9. thirds



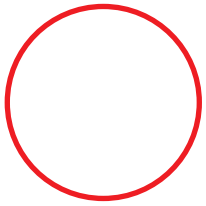
10. thirds

11. halves

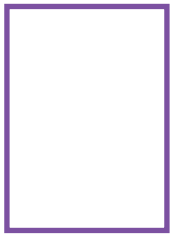
12. fourths



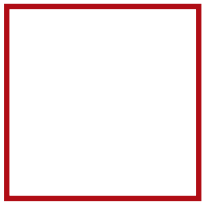
13. halves



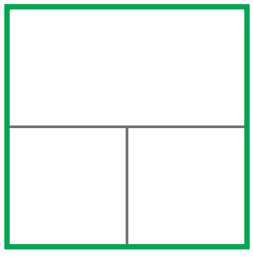
14. thirds



15. fourths



16. Does this shape show thirds?
Explain.



_____

_____

_____

_____

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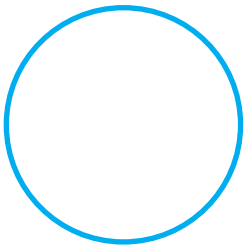
Problem Solving • Applications (Real World) WRITE Math

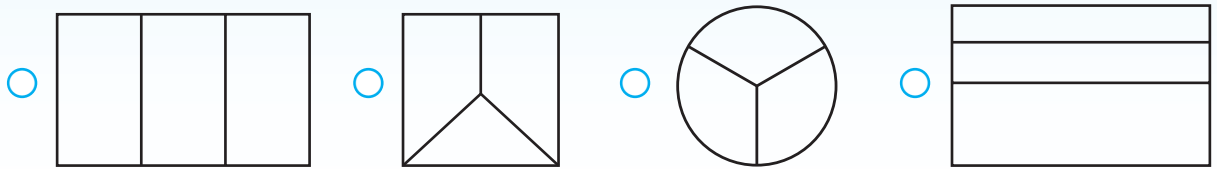
17. Colton and three friends want to share a pizza equally. Draw to show how the pizza should be divided.



18. GO DEEPER There are two square pizzas. Each pizza is cut into fourths. How many pieces of pizza are there?

_____ pieces

19. THINK SMARTER Fill in the bubble next to the shapes that show thirds. Explain your answer.



_____

_____

TAKE HOME ACTIVITY • Have your child describe how to show equal parts of a shape.

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Name _____

Describe Equal Parts

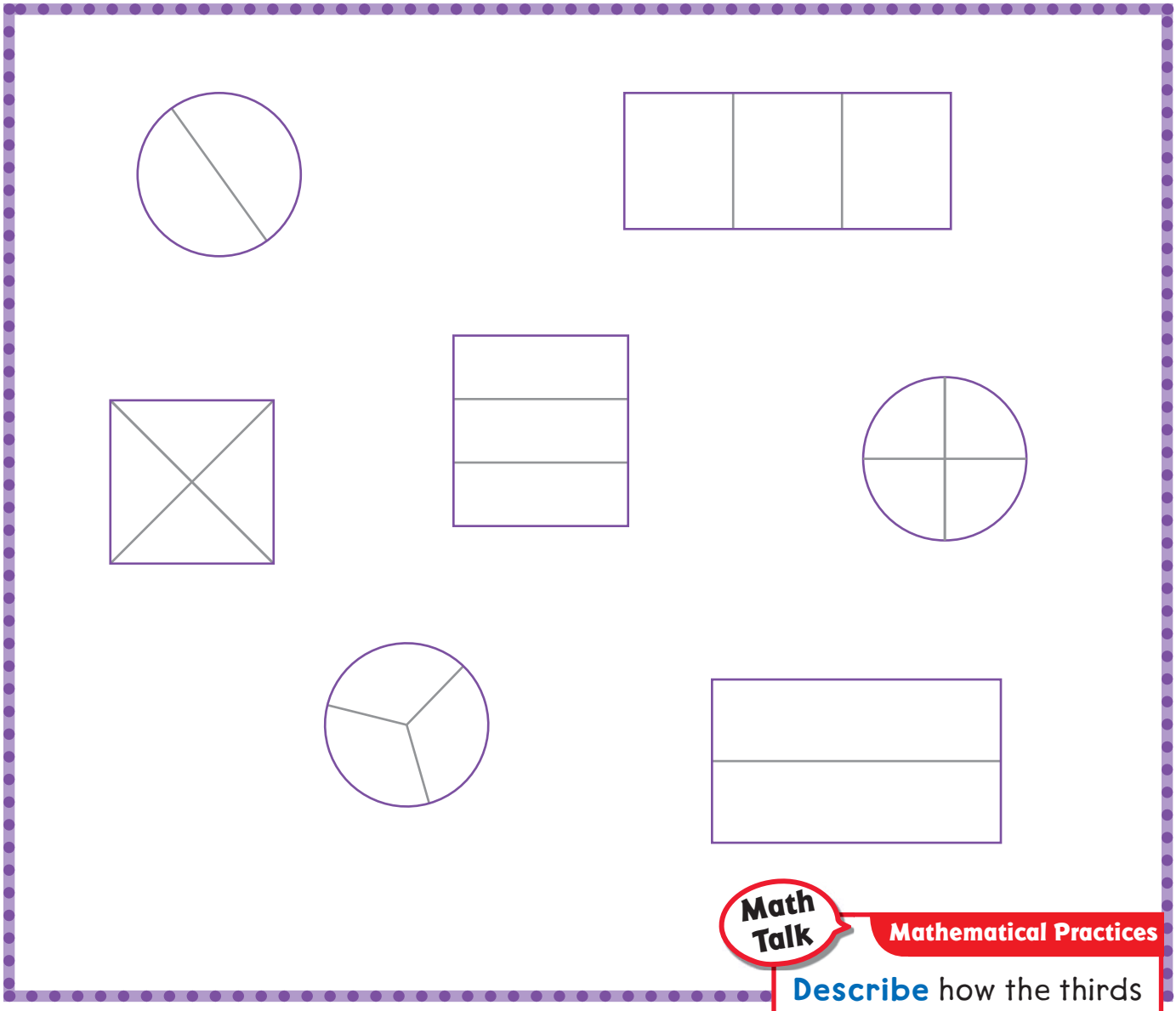
Essential Question How do you find a half of, a third of, or a fourth of a whole?

Geometry—2.G.3

MATHEMATICAL PRACTICES
MP.4, MP.6

Listen and Draw

Find shapes that show fourths and color them green.
Find shapes that show halves and color them red.



Math Talk Mathematical Practices

Describe how the thirds in the unshaded shapes compare to each other.

HOME CONNECTION • Your child identified the number of equal parts in shapes to review describing equal parts of a whole.

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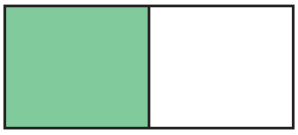
Model and Draw

These are some ways to show and describe an equal part of a whole.

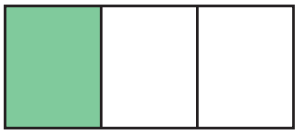
1 of 4 equal parts is called a **quarter of** that shape.

2 equal parts



A **half of** the shape is green.

3 equal parts



A **third of** the shape is green.

4 equal parts

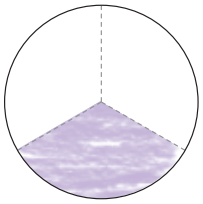
A **fourth of** the shape is green.

Share and Show

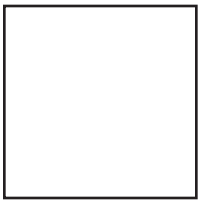
MATH BOARD

Draw to show thirds.
Color a third of the shape.

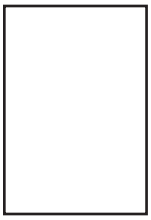
1.



2.



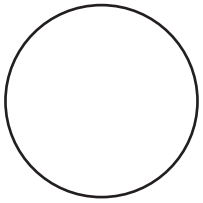
3.



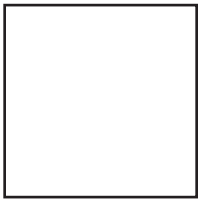
Draw to show fourths.
Color a fourth of the shape.

4.

5.



6.



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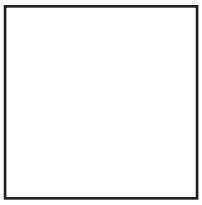
Name _____

On Your Own

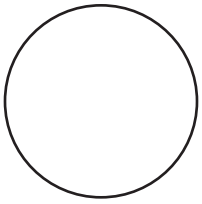
Draw to show halves.
Color a half of the shape.

7.



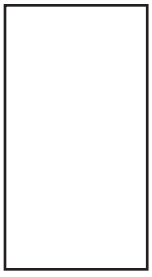
8.

9.

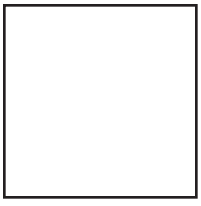


Draw to show thirds.
Color a third of the shape.

10.



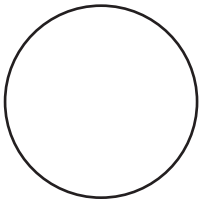
11.



12.

Draw to show fourths.
Color a fourth of the shape.

13.



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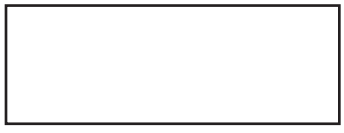

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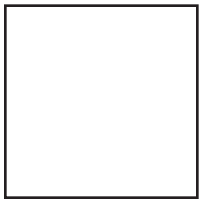

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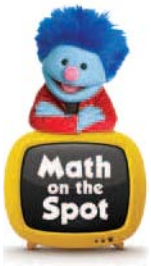
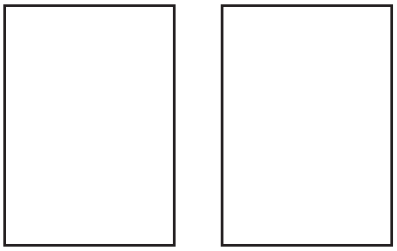
Problem Solving • Applications (Real World)

WRITE Math



16. THINK SMARTER Two posters are the same size. A third of one poster is red, and a fourth of the other poster is blue.

Is the red part or the blue part larger? Draw and write to explain.



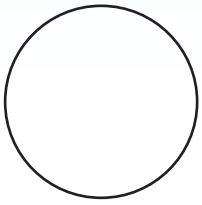
_____

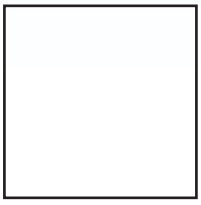
_____

_____

_____

17. THINK SMARTER Draw to show halves, thirds, and fourths. Color a half, a third, or a fourth of the shape.





TAKE HOME ACTIVITY • Draw a square. Have your child draw to show thirds and color a third of the square.

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Name _____

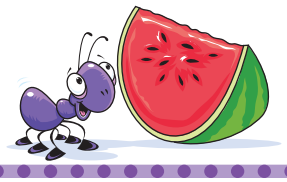
Problem Solving • Equal Shares

Essential Question How can drawing a diagram help when solving problems about equal shares?

Geometry—2.G.3

MATHEMATICAL PRACTICES
MP.1, MP.4, MP.6

There are two sandwiches that are the same size. Each sandwich is divided into fourths, but the sandwiches are cut differently. How might the two sandwiches be cut?



Unlock the Problem

Real World

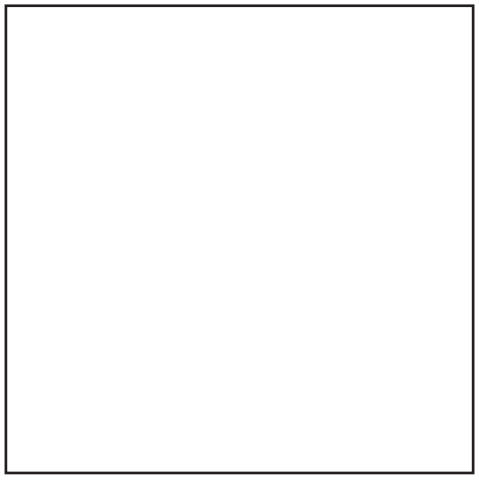
What do I need to find?

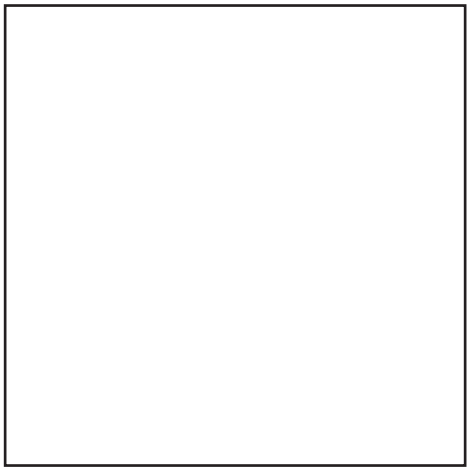
how the sandwiches could be cut

What information do I need to use?

There are _____ sandwiches. Each sandwich is divided into _____.

Show how to solve the problem.





HOME CONNECTION • Your child drew a diagram to represent and solve a problem about dividing a whole in different ways to show equal shares.

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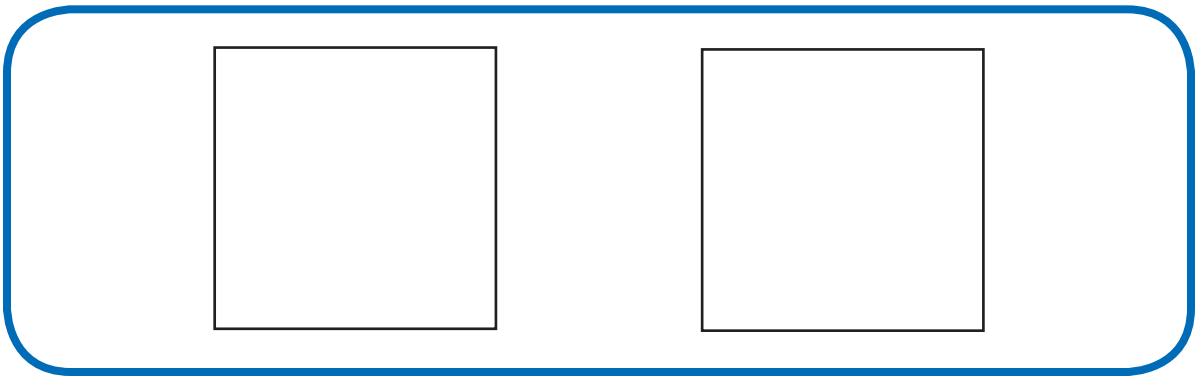
Try Another Problem

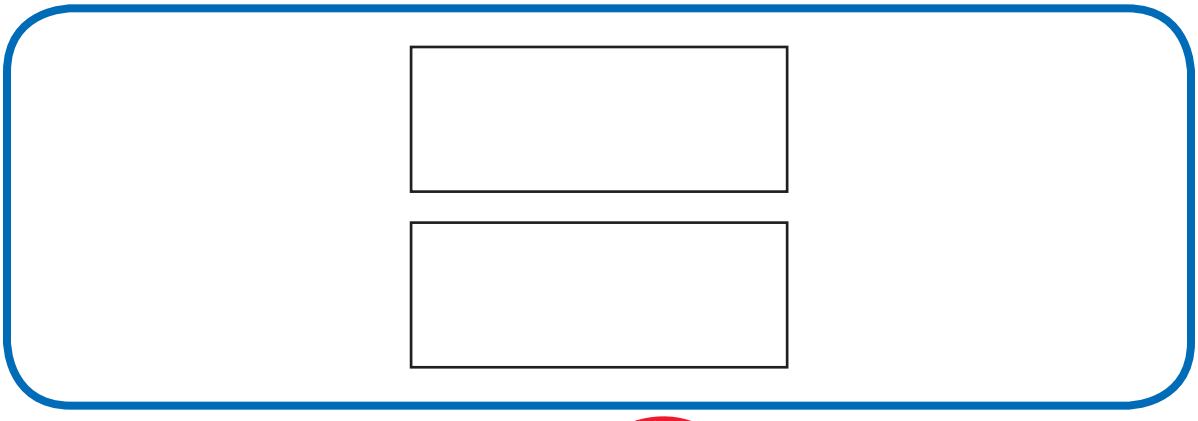
- What do I need to find?
- What information do I need to use?

Draw to show your answer.

1. Marquis has two square sheets of paper that are the same size. He wants to cut each sheet into halves. What are two different ways he can cut the sheets of paper?



2. Shanice has two pieces of cloth that are the same size. She needs to divide each piece into thirds. What are two different ways she can divide the pieces of cloth?



Math Talk

Mathematical Practices

In Problem 2, **explain** how a third of the two pieces of cloth are alike and how they are different.

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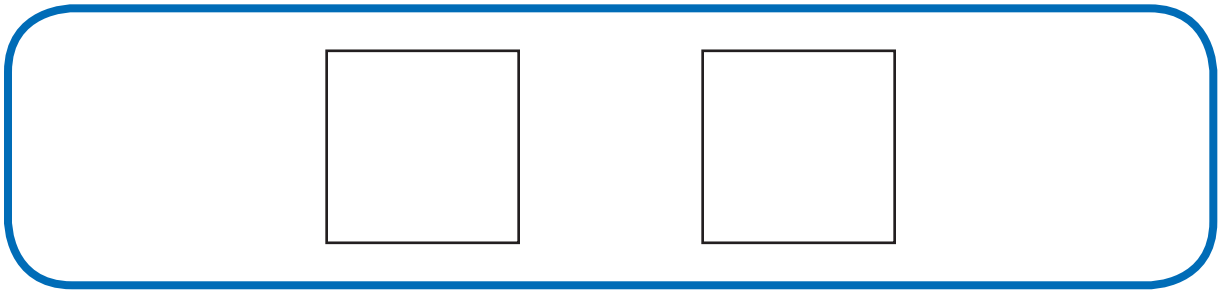
Name _____

Share and Show

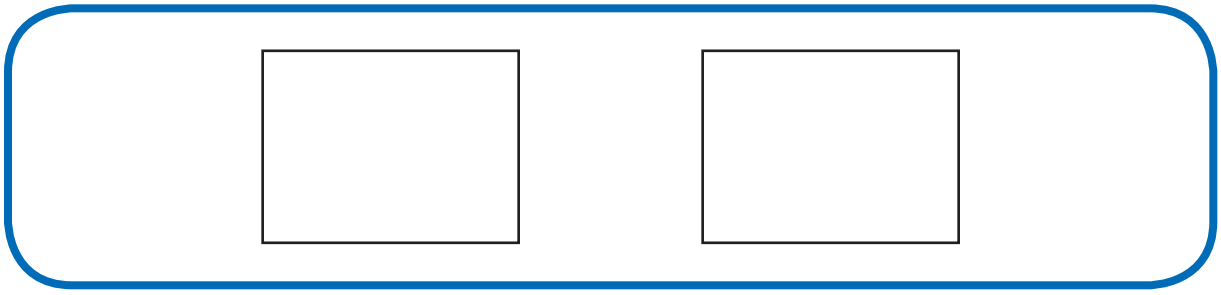
MATH BOARD

Draw to show your answer.

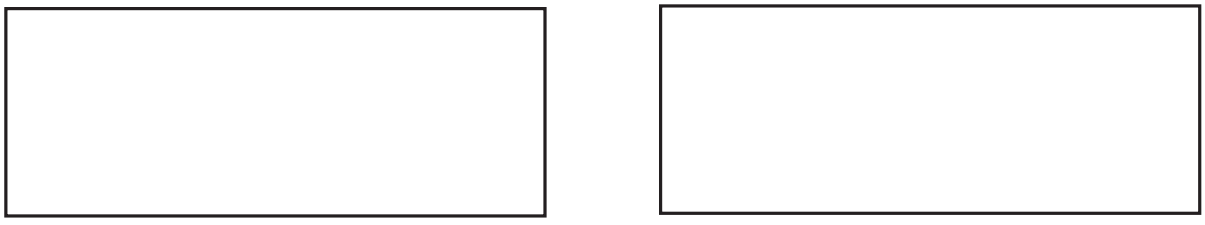
3. Brandon has two pieces of toast that are the same size. What are two different ways he can divide the pieces of toast into halves?



4. Mr. Rivera has two small cakes that are the same size. What are two different ways he can cut the cakes into fourths?



5. THINK SMARTER Erin has two ribbons that are the same size. What are two different ways she can divide the ribbons into thirds?



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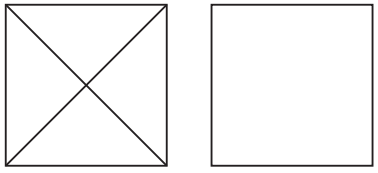
Problem Solving • Applications (Real World) WRITE Math

Solve. Write or draw to explain.

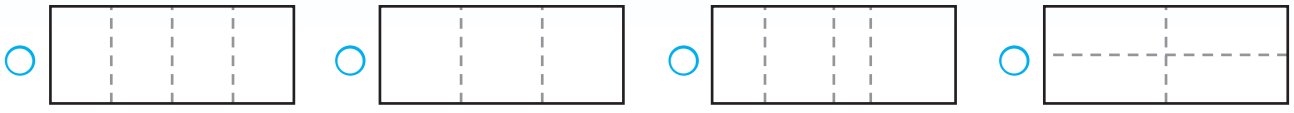
6. MATHEMATICAL PRACTICE 4 **Use Diagrams** David needs to divide two pieces of paper into the same number of equal shares. Look at how the first paper is divided. Show how to divide the second paper a different way.



7. GO DEEPER Mrs. Lee cut two sandwiches into halves. How many equal shares does she have?

_____ equal shares

8. THINK SMARTER Emma wants to cut a piece of paper into fourths. Fill in the bubble next to all the ways she could cut the paper.



TAKE HOME ACTIVITY • Ask your child to draw two rectangles and show two different ways to divide them into fourths.

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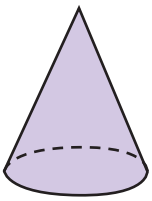
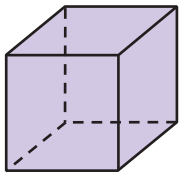
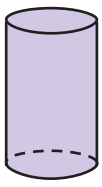
Name _____

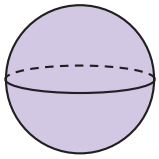
Chapter 11 Review/Test

1. Match the shapes.









2. Do the sentences describe a cube? Choose Yes or No.

A cube has 4 faces.	○ Yes	○ No
A cube has 8 vertices.	○ Yes	○ No
A cube has 14 edges.	○ Yes	○ No
Each face of a cube is a square.	○ Yes	○ No

Rewrite each sentence with a mistake to make it a true sentence.

_____

_____

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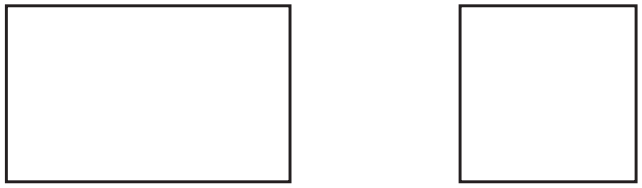
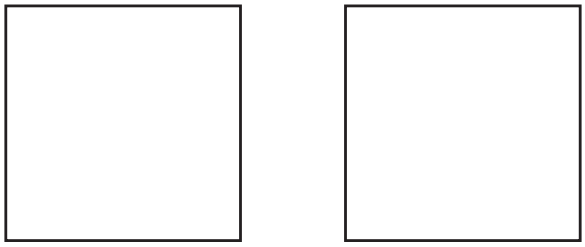
3. Draw lines to show thirds.

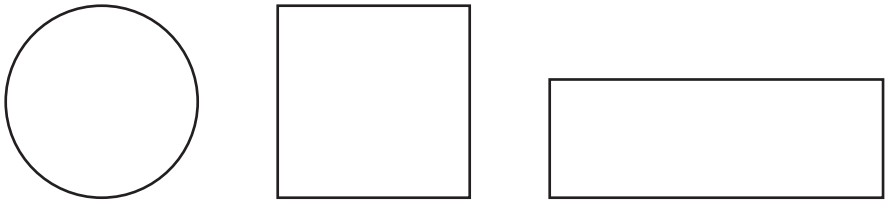


Explain how you know that the parts are thirds.

4. Will and Ana have gardens that are the same size. They divide their gardens into fourths. What are two different ways they can divide the gardens? Draw to show your answer.



5. Draw to show halves, thirds, and fourths. Color a half, a third, and a fourth.



halves **thirds** **fourths**

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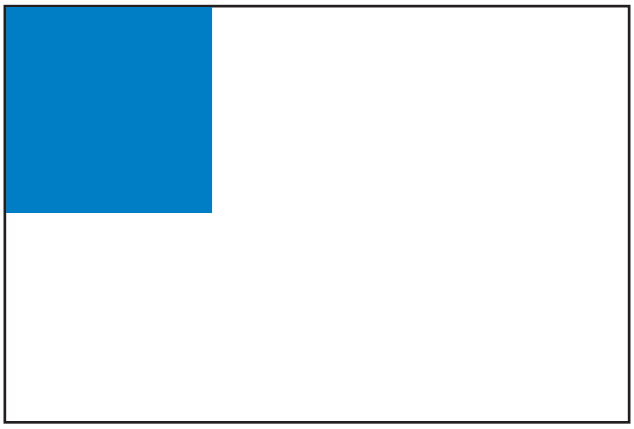
Name _____

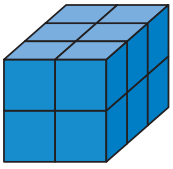
6. Max wants to cover the rectangle with blue tiles. Explain how you would estimate the number of blue tiles he would need to cover the rectangle.

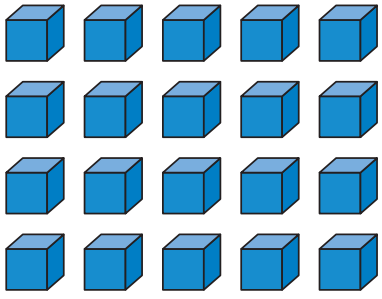


_____

_____

7. Jenna built this rectangular prism. Circle the number of unit cubes Jenna used.





8. Rachel makes a pentagon and a quadrilateral with toothpicks. She uses one toothpick for each side of a shape. How many toothpicks does Rachel need?

_____ toothpicks

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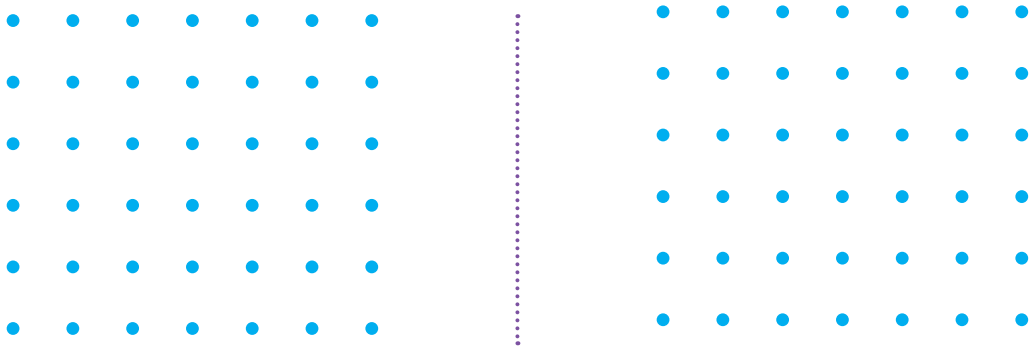
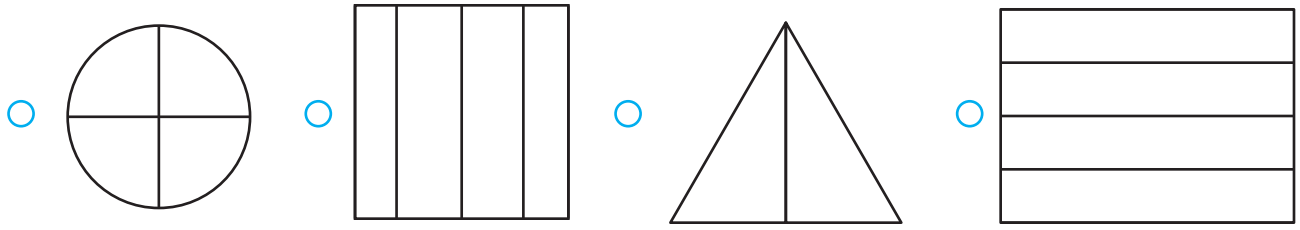
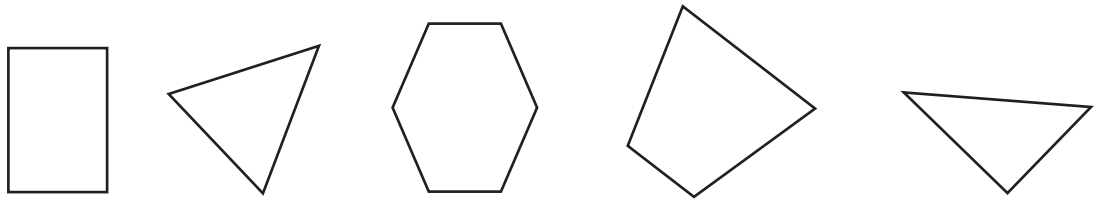
9. Kevin drew 2 two-dimensional shapes that had 9 angles in all. Draw the shapes Kevin could have drawn.



10. Fill in the bubble next to the shapes that show fourths.



11. Draw each shape where it belongs in the chart.



Shapes with 3 or Fewer Angles	Shapes with More than 3 Angles

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Picture Glossary

addend sumando

$5 + 8 = 13$

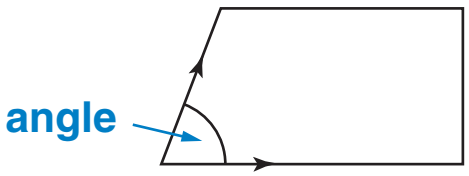
addends

a.m. a.m.

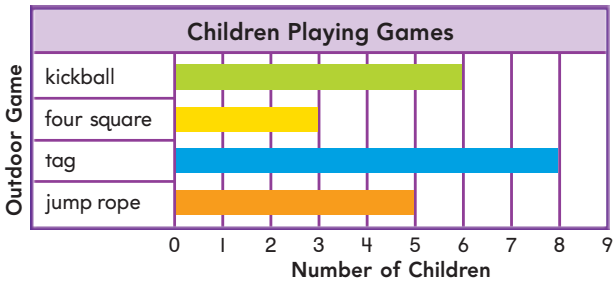
Times after midnight and before noon are written with **a.m.**

11:00 a.m. is in the morning.

angle ángulo



bar graph gráfica de barras

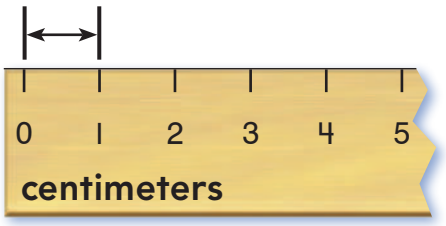


cent sign símbolo de centavo

53¢

cent sign

centimeter centímetro



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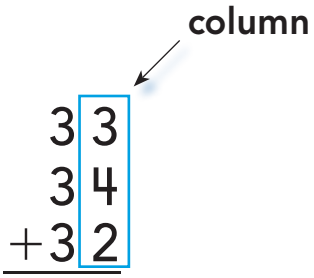
column columna



compare comparar

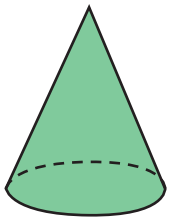
Use these symbols when you **compare**: $>$, $<$, $=$.

$241 > 234$

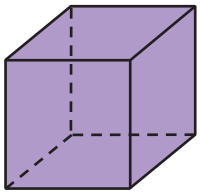
$123 < 128$

$247 = 247$

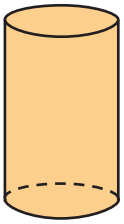
cone cono



cube cubo



cylinder cilindro



data datos

Favorite Lunch	
Lunch	**Tally**
pizza	𝍸
sandwich	𝍸 |
salad	|||
pasta	𝍸

The information in this chart is called **data**.

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decimal point punto decimal

$1.00
↑
decimal point

difference diferencia

9 − 2 = 7
↑
difference

digit dígito

0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are **digits**.

dime moneda de 10¢

A **dime** has a value of 10 cents.

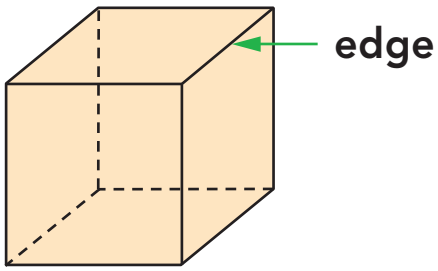
dollar dólar

One **dollar** is worth 100 cents.

dollar sign símbolo de dólar

$1.00
↑
dollar sign

edge arista



An **edge** is formed where two faces of a three-dimensional shape meet.

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estimate estimación

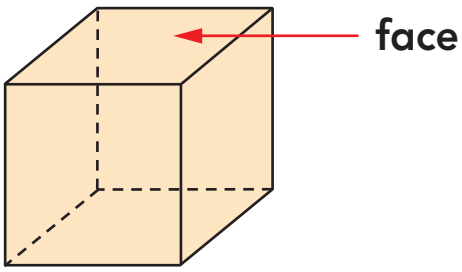
An **estimate** is an amount that tells about how many.

even par

2, 4, 6, 8, 10, . . .

even numbers

face cara



Each flat surface of this cube is a **face**.

foot pie

1 **foot** is the same length as 12 inches.

fourth of cuarto de

A **fourth of** the shape is green.

fourths cuartos

This shape has 4 equal parts. These equal parts are called **fourths**.

half of mitad de

A **half of** the shape is green.

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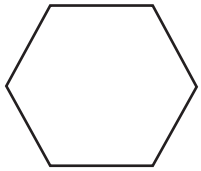
halves mitades

This shape has 2 equal parts. These equal parts are called **halves**.

hexagon hexágono

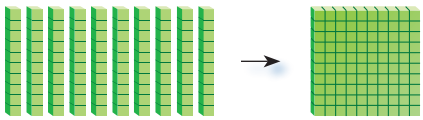


A two-dimensional shape with 6 sides is a **hexagon**.

hour hora

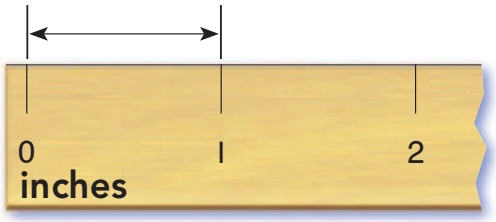
There are 60 minutes in 1 **hour**.

hundred centena

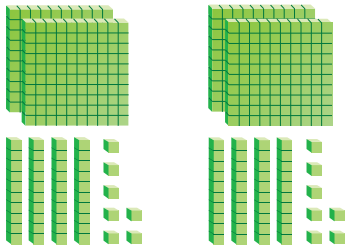


There are 10 tens in 1 **hundred.**

inch pulgada

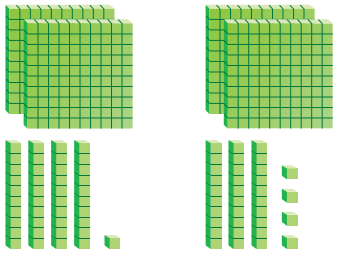


is **equal to** (=) es igual a



247 **is equal to** 247.
247 = 247

is greater than (>) es mayor que



241 **is greater than** 234.
241 > 234

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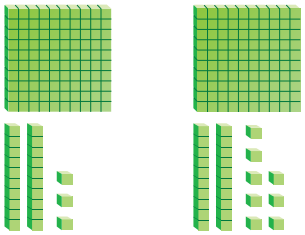
is less than (<) **es menor que**



123 **is less than** 128.
123 < 128

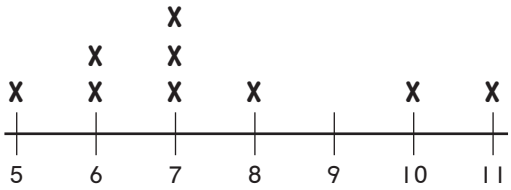
key **clave**

Number of Soccer Games							
March	⚽	⚽	⚽	⚽			
April	⚽	⚽	⚽				
May	⚽	⚽	⚽	⚽	⚽	⚽	
June	⚽	⚽	⚽	⚽	⚽	⚽	⚽

Key: Each ⚽ stands for 1 game.

The **key** tells how many each picture stands for.

line plot **diagrama de puntos**



Lengths of Paintbrushes in Inches

measuring tape **cinta métrica**

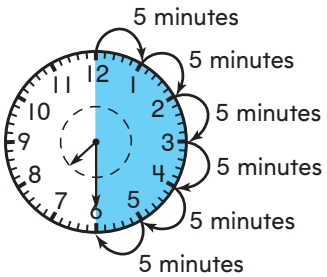
meter **metro**

1 **meter** is the same length as 100 centimeters.

midnight **medianoche**

Midnight is 12:00 at night.

minute **minuto**



There are 30 **minutes** in a half hour.

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nickel moneda de 5¢

A **nickel** has a value of 5 cents.

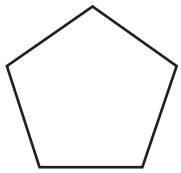
penny moneda de 1¢

A **penny** has a value of 1 cent.

noon mediodía

Noon is 12:00 in the daytime.

pentagon pentágono



A two-dimensional shape with 5 sides is a **pentagon**.

odd impar

1, 3, 5, 7, 9, 11, . . .

odd numbers

picture graph gráfica con dibujos

Number of Soccer Games							
March	⚽	⚽	⚽	⚽			
April	⚽	⚽	⚽				
May	⚽	⚽	⚽	⚽	⚽	⚽	
June	⚽	⚽	⚽	⚽	⚽	⚽	⚽

Key: Each ⚽ stands for 1 game.

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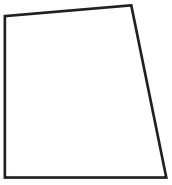
p.m. p.m.

Times after noon and before midnight are written with **p.m.**

11:00 p.m. is in the evening.

quadrilateral cuadrilátero

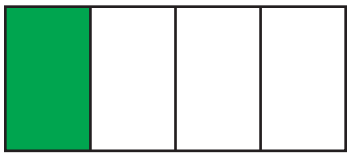


A two-dimensional shape with 4 sides is a **quadrilateral**.

quarter moneda de 25¢

A **quarter** has a value of 25 cents.

quarter of cuarta parte de

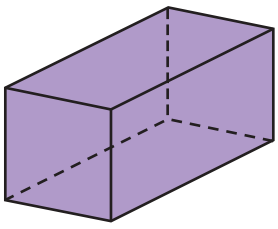


A **quarter of** the shape is green.

quarter past y cuarto

15 minutes after 8
quarter past 8

rectangular prism prisma rectangular



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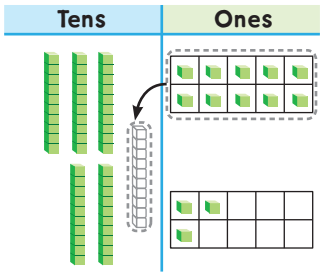
regroup reagrupar



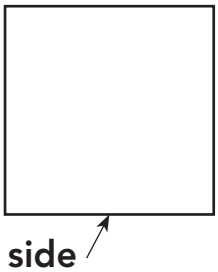
You can trade 10 ones for 1 ten to **regroup**.

sum suma o total

$9 + 6 = 15$

sum

side lado



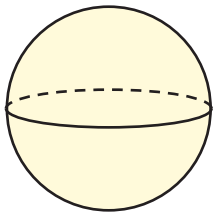
This shape has 4 **sides**.

survey encuesta

Favorite Lunch	
Lunch	**Tally**
pizza	𝍸
sandwich	𝍸 |
salad	|||
pasta	𝍸

A **survey** is a collection of data from answers to a question.

sphere esfera



third of un tercio de

A **third of** the shape is green.

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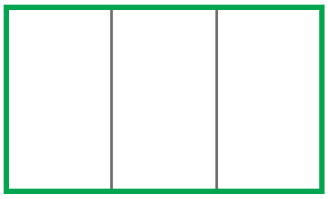
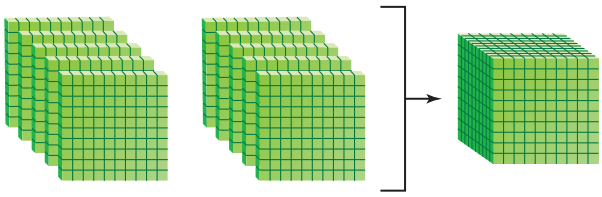
thirds tercios



This shape has 3 equal parts. These equal parts are called **thirds**.

thousand millar

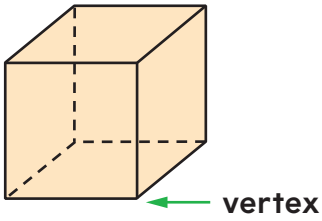


There are 10 hundreds in 1 **thousand**.

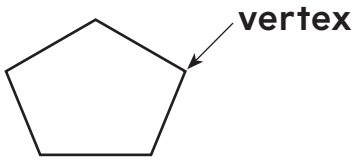
week semana

7 days is the same as 1 **week**.

vertex/vertices
vértice/vértices



A corner point of a three-dimensional shape is a **vertex**.



This shape has 5 **vertices**.

yardstick regla de 1 yarda

A **yardstick** is a measuring tool that shows 3 feet.

year año

From January 1 to December 31, there are about 52 weeks. This is 1 **year**.

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Correlations

CALIFORNIA COMMON CORE STATE STANDARDS

Standards You Will Learn		Student Edition Lessons
Mathematical Practices		
MP.1	Make sense of problems and persevere in solving them.	Lessons 1.7, 3.6, 3.8, 3.9, 3.10, 4.7, 4.9, 4.10, 5.9, 5.10, 5.11, 6.7, 7.7, 8.5, 9.4, 10.1, 10.2, 10.3, 10.4, 10.6, 11.11
MP.2	Reason abstractly and quantitatively.	Lessons 2.11, 3.5, 3.9, 4.9, 4.10, 5.9, 5.10, 5.11, 7.12, 8.5, 9.4, 9.7, 10.2, 10.4
MP.3	Construct viable arguments and critique the reasoning of others.	Lessons 1.1, 2.8, 4.6, 4.7, 5.5, 5.10, 10.5, 10.6
MP.4	Model with mathematics.	Lessons 1.4, 1.7, 2.3, 2.11, 3.8, 3.9, 3.11, 4.1, 4.2, 4.5, 4.9, 4.10, 5.4, 5.9, 5.10, 5.11, 6.7, 7.3, 7.4, 7.5, 7.6, 7.7, 8.5, 8.9, 9.4, 9.7, 10.1, 10.3, 10.5, 10.6, 11.2, 11.3, 11.4, 11.5, 11.6, 11.10, 11.11
MP.5	Use appropriate tools strategically.	Lessons 1.1, 3.7, 3.10, 4.4, 5.1, 5.2, 5.3, 5.8, 6.1, 8.1, 8.2, 8.4, 8.6, 8.8, 8.9, 9.1, 9.3, 9.5, 11.2, 11.7, 11.9
MP.6	Attend to precision.	Lessons 1.3, 1.5, 1.6, 1.8, 1.9, 2.1, 2.5, 2.8, 2.12, 3.4, 3.11, 4.1, 4.2, 4.3, 4.6, 4.8, 4.11, 4.12, 5.5, 5.7, 6.1, 6.2, 6.3, 6.4, 6.5, 6.8, 6.9, 6.10, 6.11, 7.1, 7.2, 7.8, 7.9, 7.10, 7.11, 7.12, 8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 8.9, 9.1, 9.2, 9.3, 9.5, 9.6, 10.1, 10.2, 10.3, 10.4, 10.5, 11.1, 11.2, 11.3, 11.5, 11.6, 11.8, 11.9, 11.10, 11.11
MP.7	Look for and make use of structure.	Lessons 1.1, 1.2, 1.3, 1.6, 1.7, 1.8, 1.9, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 3.1, 3.2, 3.3, 3.5, 3.10, 4.4, 4.5, 4.7, 4.8, 5.3, 5.4, 5.6, 5.7, 7.1, 7.2, 7.5, 7.6, 7.7, 7.11, 7.12, 8.3, 8.6, 8.7, 9.2, 9.5, 9.6, 11.4, 11.5

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Standards You Will Learn

		Student Edition Lessons
Mathematical Practices		
MP.8	Look for and express regularity in repeated reasoning.	Lessons 1.2, 1.5, 1.6, 2.1, 2.2, 2.4, 2.12, 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 4.3, 4.6, 4.11, 4.12, 5.1, 5.2, 5.5, 5.8, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 7.3, 7.4, 7.8, 7.9, 7.10, 8.1, 8.8, 9.1, 11.7, 11.8
Domain: Operations and Algebraic Thinking		
Represent and solve problems involving addition and subtraction.		
2.OA.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	Lessons 3.8, 3.9, 4.9, 4.10, 5.9, 5.10, 5.11
Add and subtract within 20		
2.OA.2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	Lessons 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7
Work with equal groups of objects to gain foundations for multiplication.		
2.OA.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	Lessons 1.1, 1.2
2.OA.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	Lesson 3.11

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Standards You Will Learn

		Student Edition Lessons
Domain: Number and Operations in Base Ten		
Understand place value.		
2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:	Lessons 2.2, 2.3, 2.4, 2.5
	a. 100 can be thought of as a bundle of ten tens — called a "hundred."	Lesson 2.1
	b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	Lesson 2.1
2.NBT.2	Count within 1000; skip-count by 2s, 5s, 10s, and 100s.	Lessons 1.8, 1.9, 3.10
2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	Lessons 1.3, 1.4, 1.5. 1.6, 1.7, 2.6, 2.7, 2.8
2.NBT.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	Lessons 2.11, 2.12
Use place value understanding and properties of operations to add and subtract.		
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	Lessons 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8
2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	Lessons 4.11, 4.12

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Standards You Will Learn

		Student Edition Lessons
Domain: Number and Operations in Base Ten		
Use place value understanding and properties of operations to add and subtract.		
2.NBT.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	Lessons 6.1, 6.2, 6.3, 6.4, 6.5, 6.7, 6.8, 6.9, 6.10. 6.11
2.NBT.7.1	Use estimation strategies to make reasonable estimates in problem solving.	Lessons 6.6, 6.12
2.NBT.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	Lessons 2.9, 2.10
2.NBT.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.	Lesson 6.9
Domain: Measurement and Data		
Measure and estimate lengths in standard units.		
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	Lessons 8.1, 8.2, 8.4, 8.8, 9.1, 9.3
2.MD.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	Lessons 8.6, 9.5

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Standards You Will Learn

		Student Edition Lessons
Domain: Measurement and Data		
Measure and estimate lengths in standard units.		
2.MD.3	Estimate lengths using units of inches, feet, centimeters, and meters.	Lessons 8.3, 8.7, 9.2, 9.6
2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	Lesson 9.7
Relate addition and subtraction to length.		
2.MD.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	Lessons 8.5, 9.4
2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	Lessons 8.5, 9.4
Work with time and money.		
2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. Know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).	Lessons 7.8, 7.9, 7.10, 7.11, 7.12
2.MD.8	Solve word problems involving combinations of dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*	Lessons 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7

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Standards You Will Learn

		Student Edition Lessons
Domain: Measurement and Data		
Represent and interpret data.		
2.MD.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	Lesson 8.9
2.MD.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	Lessons 10.1, 10.2, 10.3, 10.4, 10.5, 10.6
Domain: Geometry		
Reason with shapes and their attributes.		
2.G.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	Lessons 11.1, 11.2, 11.3, 11.4, 11.5, 11.6
2.G.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	Lesson 11.7
2.G.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves, thirds, half of, a third of,* etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	Lessons 11.8, 11.9, 11.10, 11.11

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