## Chapter 6 Numbers


$\qquad$

## Show What You Know

## Explore Numbers 6 to 9

Count how many. Circle the number.
I.

2.


## Count Groups to 20

Circle groups of 10 . Write how many.
3.

Make Groups of 10
Use. Draw to show a group of 10 in two different ways.
5.
6.

This page checks understanding of important skills needed for success in Chapter 6.
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$\qquad$

## Vocabulary Builder

## Visualize It

Draw pictures in the box to show the number.

| Review |  |  | Words |
| :--- | :--- | :---: | :---: |
| one | two |  |  |
| three | four |  |  |
| five | six |  |  |
| seven | eight |  |  |
| nine | ten |  |  |
|  |  |  |  |



## Understand Vocabulary

Write a review word to name the number.

## I. <br> 

2. 



## Chapter 6

## Come Show the

 NumbersMaterials • 8 and 8 • (2) ${ }^{2}$


Play with a partner.
(1) Put your 8 on START.
(2) Spin the $\begin{array}{r}12 \\ 544^{3} \\ 54^{3}\end{array}$. Move your 8 that many spaces.
(3) Read the number. Use to show the number on a ten frame.
(4) Have your partner count the to check your answer. If you are not correct, lose a turn.
(5) The first player to get to END wins.

$\qquad$
Count by Ones to 120
Essential Question How can knowing a counting
pattern help you count to I20?

Number and Operations in Base Ten-1.NBT. 1
MATHEMATICAL PRACTICES
MP.5, MP.7, MP. 8

## Listen and Draw

Write the missing numbers.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
| 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 |

FOR THE TEACHER • Read the following problem.
Debbie saw this page in a puzzle book. Two rows of numbers are missing. Use what you know about counting to write the missing numbers.

Mathematical Practices
Explain how you know which numbers are missing.

## Model and Draw

## Count forward.

 Write the numbers.

10

$\qquad$ —, 100,

$\qquad$

| 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 |
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |
| 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |



MATH
BOARD

Use a Counting Chart. Count forward. Write the numbers.

Look for a pattern to help you write the numbers.

1. 114 ,
2. 51 $\qquad$
$\qquad$ ———
3. 94 , $\qquad$
$\qquad$ —— — —
4. 78, $\qquad$
$\qquad$ —— ————
$\qquad$
ब5. 35 , $\qquad$
$\qquad$
$\qquad$
$\qquad$ $\longrightarrow$ ब6. 104 ,

242
$\qquad$

## On Your Own

## आunimitical 7 ) Look for a Pattern



Use a Counting Chart. Count forward.
Write the numbers.
7. $19, \ldots, \ldots, \ldots, \longleftarrow, \square$,
8. $98, \ldots, \ldots, \ldots$, $\square, \square$
9. 60, $\qquad$ —, —, —, $\qquad$
10. 27, $\qquad$ —, $\longrightarrow$, — $\qquad$

## II. I 07,

$\qquad$ —, $\quad$ — —, $\qquad$
12. 43 , $\qquad$ —, $\quad$ — —,

## 13. 68,

$\qquad$ —, $-\longrightarrow$ — $\longrightarrow$,
14. THINK SMARIER Use a Counting Chart to write the numbers counting forward.


## Problem Solving • Applications

Use a Counting Chart. Draw and write numbers to solve.
15. HIDEEPER The bag has 99 buttons.

Draw more buttons so there are 105 buttons in all. Write the numbers as you count.

## WRITE Math


16. THINKSMARTER The bag has 56 buttons. How many more buttons do you need to add to the bag to have 64 buttons?
$\qquad$ buttons

17. THINVSMARIEV Tito counts IO5 cubes. Then he counts forward some more cubes. Write the numbers.


## Listen and Draw

Start on IO. Count forward by tens.
Color each number as you say it.

| 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 |

Count by Tens to 120
Essential Question How do numbers change
as you count by tens to I20?

Which numbers in the hundred chart did you color? Explain.

Start on 3. Count by tens.

| 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 |
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |
| 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |

## THINK

When you count by tens, each number is ten more.

3, 13, 23, 33,

## Share and Show

## MATH

Use a Counting Chart to count by tens.
Write the numbers.
I. Start on 17.

17,
2. Start on I.

I,
33. Start on 39.

39,
$\qquad$

## On Your Own

## manikicici ( U) Use Patterns Use a Counting



Chart. Count by tens. Write the numbers.
4. 40, $\qquad$
$\qquad$
5. I 5, $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
6. 28, $\qquad$ - $\quad$ - $\quad$ -_-

$$
\text { 7. } 6, \ldots, \ldots, \ldots, \ldots, \ldots
$$

8. 14 ,
$\qquad$
$\qquad$
$\qquad$
$\qquad$
9. 32,
10. ThanV smantiel If you start on 43 and count by tens, what number is after 73 and before 93 ?

II. You say me when you start on 21 and count by tens. I am after 91 I I am before III.
What number am I?

## Problem Solving • Applications

 WRITE MathEHDEBPE Use what you know about a Counting
Chart to write the missing numbers.
12.

14.

15.

16. THINIS SMarite Use a Counting Chart. Count by tens. Match each number on the left to a number that is 10 more.
57
103
73
67
77
87
93

- 83
$\qquad$


## Understand Ten and Ones

Essential Question How can you use different ways to write a number as ten and ones?

Number and Operations in Base Ten-1.NBT.2b
MATHEMATICAL PRACTICES MP.3, MP.5, MP. 6

```
Listen and Draw
```

Use [o to model the problem.
Draw the to show your work.


FOR THE TEACHER • Read the problem. Tim has 10 pennies. He gets 2 more pennies. How many pennies does Tim have now?

Mathematical Practices
How does your picture show the pennies Tim has? Explain.

## Model and Draw

I3 is a two-digit number.
The I in 13 means I ten.
The 3 in 13 means 3 ones.

## THINK

10 ones and 3 ones is the same as
I ten 3 ones.


+

## Share and Show

Use the model. Write the number three different ways.
(6) 1.

$\qquad$ ten $\qquad$ ones
$\qquad$
$+$
© 2.

$\qquad$ ten $\qquad$ ones
$\qquad$
$\qquad$

## On Your Own

## Mand:ancal (6) Make Connections

Use the model. Write the number three different ways.
3.

$\qquad$ ten $\qquad$ ones
$\qquad$
4.

ten $\qquad$ ones
5. FIDEEPER Draw cubes to show the number. Write the missing numbers.

ten $\qquad$ ones

## Problem Solving • Applications

WRITE Math
Draw cubes to show the number. Write the number three different ways.
6. David has I ten and 3 ones. Abby has 6 ones. They put all their tens and ones together. What number did they make?

ten $\qquad$ ones
$\qquad$
$+$ $\qquad$
7. THINK SMARITE Karen has 7 ones. Jimmy has 9 ones. They put all their ones together. What number did they make?

ten $\qquad$ ones

8. THINKSMARIER Does the number match the model?
$10+5$

- Yes
- No
I ten I5 ones
- Yes
- No
 there are and say the number. Repeat with other numbers from II to 19.
$\qquad$


## Make Ten and Ones

Essential Question How can you show a number as ten and ones?

Use to model the problem.
Draw to show your work.


Draw to show the group of ten another way.


## Model and Draw

You can group 10 ab to make I ten.

$10_{\text {ons }}=1$ ten

Draw a quick picture to show I ten.

## Share and Show

Use [o. Make groups of ten and ones.
Draw your work. Write how many.
I.

$\$ 3$.

2.

___ ten $\qquad$ ones
64.

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254 two hundred fifty-four
$\qquad$

## On Your Own

## 

 ten and ones. Draw your work. Write how many.5. 

## 15 fifteen

6. 

ten $\qquad$ ones

## 7.

17
seventeen
ten $\qquad$ ones

$\qquad$


## Problem Solving • Applications

WRITE Math
Solve.
10. THINKSMARTER Emily wants to write ten and ones to show 20.
What does Emily write?
$\qquad$ ten $\qquad$ ones

II. FIDEFPER/ Gina thinks of a number that has 7 ones and I ten. What is the number? Draw to show your work.
12. Ben drew this picture to show a number. What is the number?
13. THIN/SMARIER Circle the numbers that make the sentence true.

ten $\qquad$ ones

TAKE HOME ACTIVITY • Give your child numbers from II to I9. Have your child work with pennies to show a group of ten and a group of ones for each number.

## Tens

## Lesson 6.5

Essential Question How can you model and name groups of ten?

## Listen and Draw <br> 

## Use [o to solve the riddle. <br> Draw and write to show your work.



## Model and Draw

You can group ones to make tens.

Draw a quick picture to show the tens.


$$
20 \text { ones }=
$$

$$
\frac{\text { tens }=}{\text { twenty }}
$$

MATH BOARD

Use [o. Make groups of ten.
Write the tens and ones.

Draw the tens. Count by tens.

$$
30 \text { ones }=\ldots \text { tens ___ ones }
$$


$\qquad$ tens $=$ $\qquad$ thirty

$\qquad$ tens $\qquad$ ones
$\qquad$ tens $=$
$\qquad$

## On Your Own

Draw the tens.
Count by tens.

## (unimicer 18) Use Repeated Reasoning Use ${ }^{\text {br}}$. Make groups of ten. Write the tens and ones. 3. 50 ones


$\qquad$ tens $\qquad$ ones
$\qquad$ tens $=$ fifty
4.60 ones
$\qquad$ tens ___ ones
$\qquad$ tens $=\frac{}{\text { sixty }}$
5. 70 ones
$\qquad$ tens $\qquad$ ones $\qquad$ tens $=$ seventy
6. 80 ones
tens $\qquad$ ones
$\qquad$ tens $=$ $\qquad$ eighty
7. 90 ones
$\qquad$ tens $\qquad$ ones
$\qquad$ tens $=$
ninety
8. THINK SMARTER 100 ones
tens $\qquad$ ones
$\qquad$
$\qquad$

## V Mid-Chapter Checkpoint

## Concepts and Skills

Use a Counting Chart.
Count forward. Write the numbers. (1..вв.,1)

1. 63,64 ,
2. 108,109 , $\qquad$ , $\qquad$ , $\qquad$
$\qquad$ , $\qquad$ , $\qquad$ -

Use a Counting Chart.
Count by tens. Write the numbers. (1..вт.,.1)
3. 42, 52, $\qquad$ , $\qquad$ , $\qquad$
$\qquad$ . $\qquad$ . $\qquad$
5. Use the model. Write the number three different ways. (1...Btr.2b)

$\qquad$ ten $\qquad$ ones

Use [ob. Make groups of ten and ones.
Draw your work. Write how many. (1..ев.2b)
6.

15
fifteen
$\qquad$ ten $\qquad$ ones
7. THINK SMARIER Choose all the ways that name the model.60

- 60 tens
- 6 tens 0 ones


## Tens and Ones to 50

Essential Question How can you group cubes to show a number as tens and ones?

Number and Operations in Base
Ten-1.NBT. 2
MATHEMATICAL PRACTICES
MP.4, MP.5, MP. 6

## Listen and Draw

Use to model the number.
Draw to show your work.


## Model and Draw

The 2 in 24 means 2 tens.


The 2 in 42 means 2 ones.


## Share and Show

Use your MathBoard and show the tens and ones. Write the numbers.

$\qquad$ tens $\qquad$ ones $=$ $\qquad$ ones =
2.

$\qquad$ tens $\qquad$ ones $=$ $\qquad$
© 3.

© 4.

$\qquad$ ten $\qquad$ ones $=$ $\qquad$

262 two hundred sixty-two
$\qquad$

## On Your Own

## maritmaical (6) Make Connections

Write the numbers.
5.

$\qquad$ tens $\qquad$ ones $=$ $\qquad$
6.


$\qquad$ ones $=$ $\qquad$
7.

$\qquad$ tens $\qquad$ ones $=$ $\qquad$
8.

$\qquad$ tens $\qquad$ ones $=$ $\qquad$
9. FIDEEPER Mary drew tens and ones to show 32.

She made a mistake.
Draw a correct quick picture to show 32.
Write the numbers.

| Tens | Ones |
| :---: | :---: |
| $1+1$ |  |
| $+1+$ | 0 |
| $1+$ | 0 |


| Tens | Ones |
| :---: | :---: |
|  |  |
| tens $\quad$ ones $=$ |  |

## Problem Solving • Applications

## Solve. Write the numbers.

> 10. I have 46 cubes. How many tens and ones can I make? $\qquad$ tens $\qquad$ ones

## III. I have 32 cubes. How many

 tens and ones can I make? $\qquad$ tens $\qquad$ ones
## 12. I have 28 cubes. How many

 tens and ones can I make? $\qquad$ tens $\qquad$ ones13. THINKSMARIEP I am a number less than 50. I have 8 ones and some tens. What numbers could I be?


Personal Math Trainer
14. THINKSMARTER There are 35 . Jun says that there are 3 ones and 5 tens. Rob says that there are 3 tens and 5 ones. Who is correct? Circle the name.


How can you draw to show 35 ?

Essential Question How can you show numbers to IOO as tens and ones?

Number and Operations in Base
Ten-1.NBT. 2
MATHEMATICAL PRACTICES
MP.2, MP.4, MP. 6

## Listen and Draw

Use Draw a quick picture to show your work.


## Model and Draw

The number just after 99 is 100 .
IO tens is the same as I hundred.

Draw quick pictures to show 99 and 100.
 tens
 ones $=\underline{\square}$
 tens
 ones $=$ Share and Show

Use your MathBoard and show the tens and ones. Write the numbers.

$\qquad$

## On Your Own

Marinmaical (2) Reason Quantitatively Write the numbers. 9. AFEFEFEFEFEFB $\qquad$ tens $\qquad$ ones = $\qquad$

$\qquad$ tens $\qquad$ ones $=$ $\qquad$

## 7. <br> AEEEEFE <br> $\square$

tens $\qquad$ ones =
$\qquad$
$\qquad$

##  <br> 9.

10. EIDDEPER What number is the same as 7 tens and 20 ones?
tens $\qquad$ ones = $\qquad$
tens $\qquad$ ones = $\qquad$
$\qquad$元
$\qquad$
ones -
II. [TDDEEPER What number is the same as 5 tens and I3 ones?

## Problem Solving • Applications

Draw a quick picture to show the number.
Write how many tens and ones there are.
12. Edna has 82 stamps.

tens $\qquad$ ones
13. Amy has 79 pennies.

tens $\qquad$ ones
14. THIN/GSMARTER Moe has a group of 70 red feathers and 30 brown feathers.

$\qquad$

$\qquad$ tens $\qquad$ ones
15. THINK SMARITE Read the problem. Write a number to solve.

I am greater than 14.
I am less than 20.
I have 6 ones. each number and then write the number.

# Problem Solving•Show Numbers in Different Ways 

Essential Question How can making a model help you show a number in different ways?


Number and Operations in Base Ten-1.NBT.2a, 1.NBT. 3 MATHEMATICAL PRACTICES MP.1, MP.6, MP. 7

Gary and Jill both want 23 stickers for a class project. There are 3 sheets of 10 stickers and 30 single stickers on the table. How could Gary and Jill each take 23 stickers?

What information do I need to use?

The number is
 .

Show how to solve the problem.

Gary

| Tens | Ones |
| :--- | :--- |
|  |  |
|  |  |


| Tens | Ones |
| :--- | :--- |
|  |  |
|  |  |
|  |  |



HOME CONNECTION • Showing the number with base-ten blocks helps your child explore different ways to combine tens and ones.

## Try Another Problem

Use two different ways. Draw both ways.

## I. <br> 46



| Tens | Ones | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

2. 7 I

3. 65

$\qquad$

## Share and Show

```
MATH MATH
BOARD
```

Use unnา $e$ to show the number two different ways. Draw both ways.
©4. 59

| Tens | Ones |
| :--- | :--- |
|  |  |
|  |  |
|  |  |


| Tens | Ones |
| :--- | :--- |
|  |  |
|  |  |
|  |  |



あ5. 34

| Tens | Ones |
| :--- | :--- |
|  |  |
|  |  |


6. THINISSMARIER Show 31 three ways.


Write a number sentence to solve. Draw to explain.

Felix invites I5 friends to his party. Some friends are girls. 8 friends are boys. How many friends are girls?

[GIDEEPER Solve. Write the numbers.
8. I am a number less than 35 .

I have 3 tens and some ones.
What numbers can I be?
9. THINismarte + Choose all the ways that show the same number.


Essential Question How can you model, read, and write numbers from IOO to IIO?

Number and Operations in Base Ten-1.NBT. 1 MATHEMATICAL PRACTICES MP.4, MP.5, MP. 7

## Listen and Draw (Warld

Use o
Circle a number to answer the question.

| 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 |

FOR THE TEACHER • Have children locate each number on the hundred chart. What number is the same as 30 ones? What number is the same as 10 tens? What number is the same as 8 tens 7 ones? What number has 1 more one than 52? What number has 1 more ten than 65?

Mathematical Practices
Explain why 100 is to the right of 99 on the hundred chart. Explain why 100 is below 90.

Model and Draw


10 tens and 1 more $=\underline{101}$
10 tens and 10 more $=10$

## Share and Show

## REMEMBER

10 tens $=100$

Write the number.
I. IO tens and I more
2. 10 tens and 2 more
3. 10 tens and 3 more
65. 10 tens and 5 more
66. 10 tens and 6 more

274 two hundred seventy-four
$\qquad$

## On Your Own

## 

Use
Write the number.
7. 10 tens and 7 more
8. 10 tens and 8 more
9. 10 tens and 9 more

## 10. IO tens and 10 more

Write the number.
12.

14.

II. THIN/isMARTER II tens


## Problem Solving • Applications world

[ 1 Iodereiz Solve to find the number of apples. 16.


There are $\qquad$ apples.
17.


There are $\qquad$ apples.
18.


There are $\qquad$ apples.
19. THINK SMARITR What number does the model show?


TAKE HOME ACTIVITY • Give your child a group of 100 to IIO pennies. Ask him or her to make as many groups of ten as possible, then tell you the total number of pennies.

FOR MORE PRACTICE:
Standards Practice Book

Model, Read, and Write Numbers from IIO to 120
Essential Question How can you model, read, and write numbers from IIO to I20?

Number and Operations in Base
Ten-1.NBT. 1
MATHEMATICAL PRACTICES MP.2, MP.4, MP. 6

## Listen and Draw

How many shells are there?


## Model and Draw

## II tens is 110 . <br> |||||||||||| <br> 12 tens is 120. <br> ||||||||||||| <br> 120

## Share and Show

Use Write the number.

I.

2.

© 3.
(6) 4.

$\qquad$

## On Your Own

## Marinicical (4) Model Mathematics

Use
 Write the number.
5.
8.

6.

7. ||||||||||| 10.

13.
0
0
0
0
0 $\left\|\left.\left\|\left\|\left\|\begin{array}{l}0 \\ 0 \\ 0\end{array}\right\|\right\|\right\| \begin{array}{l}0 \\ 0 \\ 0 \\ 0\end{array} \right\rvert\,\right.$

## Problem Solving • Applications Word

GIDEEPER Choose a way to solve.
Draw or write to explain.
14. Joe collects pennies. He can make

II groups of IO pennies.
How many pennies
does Joe have?

15. Cindy collects buttons. She can
make II groups of IO buttons
and one more group of 7 buttons.
How many buttons
does Cindy have?
$\qquad$ buttons
16. Lee collects marbles. He can make II groups of 10 marbles and has 2 marbles left over. How many marbles does Lee have?

17. THINKSMARIER Finish the drawing to show II9.


Write to explain.
$\qquad$

## Chapter 6 Review/Test

I. Felix counts 46 cubes. Then he counts forward some more cubes. Write the numbers.

2. Count by tens. Match each number on the left to a number that is 10 more.

$$
35 \cdot \quad \cdot 69
$$

49 • 59
$59 \cdot 75$
65

- 45

57 • 67
3. Does the number match the model? Choose Yes or No.


| $10+10$ | $\circ$ Yes | $\circ$ No |
| :--- | :--- | :--- |
| I ten 4 ones | $\circ$ Yes | $\circ$ No |
| I ten 5 ones | $\circ$ Yes | $\circ$ No |
| $10+5$ | $\circ$ Yes | $\circ$ No |

4. Circle the numbers that make the sentence true.

There are $\begin{gathered}1 \\ 2 \\ 10\end{gathered}$ tens and $\begin{gathered}1 \\ 2 \\ 10\end{gathered}$ ones in 12.
5. Choose all the ways that
 name the model.


- 3 ones
- 3 tens
- 3 tens 0 ones
- 30
$\qquad$

6. There are 42 . Lisa says that there are 4 tens and 2 ones. Elena says there are 2 tens and 4 ones. Who is correct? Circle the name.

Lisa
Elena
How can you draw to show 42?
$\square$
7. Read the problem. Write a number to solve.

I am greater than 27.
I am less than 30.
I have 9 ones.

8. Choose all the ways that show the same number.
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$\bigcirc$
9. What number does the model show?
10. Finish the drawing to show II8.

$\square$
Write to explain.
$\square$
II. Count the Write the numbers.

12. Draw a quick picture to show 54 in two ways. Then write the number of tens and ones in each picture.

$\square$
$\square$ ones $\qquad$ tens $\qquad$ ones

## Chapter Compare Numbers

$\qquad$

## Show What You Know

## Model More

Draw lines to match. Circle the set that has more.
I.

2.

11

11

## More, Fewer

3. Circle the row that has more. 4. Circle the row that has fewer.


## Draw Equal Groups

5. Draw a ball for each glove.


This page checks understanding of important skills needed for success in Chapter 7.
$\qquad$

## Vocabulary Builder

fewer

## Visualize It

Draw pictures in the box to show more, fewer, or the same number.


## Understand Vocabulary

Complete the sentences with review words.
I. I see 2 white cats and 4 yellow cats. I see $\qquad$ yellow cats than white cats.
2. Dave has 9 grapes. Ann has 6 grapes. Ann has grapes than Dave.
3. 5 ducks and 5 swans are at the pond. There are the $\qquad$ number of ducks and swans.

## Game Rainy Day

## Materials • \%

(1) Toss the ©ᄋ.
(2) Use to cover one space that shows a number that is I more.
(3) If you do not have a space that shows the number, your turn is over.
(4) The other player takes a turn.
(5) The first player to cover all of his or her spaces wins.

Player I

| 4 | 5 | 2 |
| :--- | :--- | :--- |
| 3 | 6 | 4 |
| 2 | 5 | 7 |

Player 2

| 6 | 2 | 3 |
| :--- | :--- | :--- |
| 4 | 7 | 6 |
| 5 | 3 | 7 |

$\qquad$

## Algebra•Greater Than

Essential Question How can you compare two numbers to find which is greater?

## Listen and Draw

MATHEMATICAL PRACTICES
MP.5, MP. 7

## Use naman to solve.

Draw quick pictures to show your work.


## Model and Draw

To compare 25 and I7, first compare the tens.


## 25

 is greater than $\qquad$ .

## Share and Show

MATH BOARD

Use your MathBoard and anme to show each number.

|  | Circle the greater number. | Did tens or ones help you decide? | Write the numbers. |
| :---: | :---: | :---: | :---: |
| I. | 62 65 | tens 'ones | is greater than $\qquad$ $65>62$ |
| d2. | 8448 | tens ones | $\qquad$ is greater than $\qquad$ $>$ $\qquad$ |
| ©3. | 7270 | tens ones | is greater than |

## On Your Own

 Use 1 U if you need to.

| Circle the <br> greater <br> number. | Did tens or <br> ones help <br> you decide? | Write the numbers. |
| :---: | :---: | :---: |
| $57 \quad 75$ | tens ones | is greater than ___ |
| 5. | tens ones | $\ldots$ |.

Write or draw to solve.
6. THINISMARIEI Pam and Jake play a game for points. Pam's points are I ten 6 ones. Jake's points are I one 6 tens. Who has the greatest number of points?

7. (GIDEBPER John has 5I cards.

Paul has 32 cards. George has a stack of cards greater than either Paul or John. How many cards might George have?
8. THINVSMARETE Color the balloons that show numbers greater than 56.


## Algebra - Less Than

Essential Question How can you compare two numbers to find which is less?

Number and Operations in
Base Ten-1.NBT. 3
MATHEMATICAL PRACTICES
MP.5, MP. 7

## Listen and Draw

## Use pictures to show your work.

## Model and Draw

Compare numbers to find which is less.



Share and Show
MATH

How do you know which number is less?
 to show each number.

|  | Circle the number that is less. | Did tens or ones help you decide? | Write the numbers. |
| :---: | :---: | :---: | :---: |
| 1. | 39 36 | tens 'ones, | $\qquad$ is less than $\qquad$ $3 \%$ $36<36$ |
| \$2. | 8094 | tens ones | is less than |
| \$3. | 5754 | tens ones | is less than |

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294 two hundred ninety-four
$\qquad$

## On Your Own

## Mathenatcal 5 Use a Concrete Model

 FIDEEPER Use in if you need to.|  | Circle the number that is less. | Did tens or ones help you decide? | Write the numbers. |
| :---: | :---: | :---: | :---: |
| 4. | 4748 | tens ones | is less than |
| 5. | 8228 | tens ones | is less than |
| 6. | 9690 | tens ones | is less than |
| 7. | 2332 | tens ones | is less than |
| 8. | 6555 | tens ones | $\qquad$ is less than $\qquad$ |

## Problem Solving • Applications World

WRITE Math
Write a number to solve.
9. THINVSMARIEV Nan makes the number 46. Marty makes a number that is less than 46. What could be a number Marty makes?
10. THIN/SSMARIEX Jack makes the number 92. Kit makes a number that has fewer ones than 92. What could be a number Kit makes?
II. THINK SMAATIE Write a number that is less than 67.

How do you know your number is less than 67?

Name

## Algebra•Use Symbols to Compare

Essential Question How can you use symbols to show how numbers compare?

## Listen and Draw

## Use <br> e. Draw quick pictures to show

 your work. Write the numbers to compare.

## Model and Draw



## Share and Show

Use Write $<,>$, or $=$. Complete the sentence.
I.
2.


298
two hundred ninety-eight

## On Your Own

## мй

ETDDEPPR Write $<,>$, or $=$.
Draw a quick picture if you need to.
5.
IIII


6.

$38 \bigcirc 50$
7.

8.

१.

10. THINK SMAATIR Gill and Rob win tokens in a game. Gill has 86 tokens. Rob has 61 tokens. 70 tokens are needed for a prize. Who has enough tokens for a prize? Write the number.


THINI/SMARIE) Write numbers to solve.
II.
$96=$
12.
$53>$ $\qquad$
13.

16.

$$
29=
$$

14. 

$40<$
15.

$$
71>
$$

TAKE HOME ACTIVITY • Have your child show you how to write <, >, and = to compare two numbers. Ask him or her to use words to explain each comparison.
$\qquad$

## Mid-Chapter Checkpoint

## Goncepts and Skills

Circle the greater number. Write the numbers. (1..neт.3)
I.
38
83
$\qquad$ is greater than $\qquad$ .

Circle the number that is less. Write the numbers. (1.nti.3)
2.
61
29
$\qquad$ is less than $\qquad$ .
$\qquad$
3. Matt scores 34 points and wins the game. Lee scores points and does not win. The number of Lee's points is less than the number of Matt's points.
Is Lee's score 49 or 29 ? (1..мет.3)
4. THIN/KSAARIE Circle the symbol that makes the math sentence true. (1...вт.3)


## Problem Solving • Compare Numbers

## Lesson 7.4

Essential Question How can making
a model help you compare numbers?

Cassidy has the number cards shown below. She gives away the cards with numbers less than 49 and greater than 53. Which number cards does Cassidy have now?


## Try Another Problem

Make a model to solve.
I. Tony has these number cards. He gives away the cards with numbers less than 16 and greater than I9. Which number cards does Tony have now?
15
17
18
20
22

Tony has number cards $\qquad$ .
2. Carol has these number cards. She keeps the cards with numbers greater than 98 and less than 95. Circle the number cards Carol keeps.


Carol keeps number cards $\qquad$ .

Mathematical Practices
$\qquad$

## Share and Show

MATHEMATICAL 4 URACICE
PRA Me Models Make a model to solve.
©3. Felipe has these number cards. He gives away cards with numbers less than 60 and greater than 65 . Which number cards does Felipe have now?
58 61 63 64 68

Felipe has number cards $\qquad$ .
4. THINKKMAATIER Molly underlines the number cards greater than 76 and circles the number cards less than 84 . Which number cards are both greater than 76 and less than 84 ?


Number cards $\qquad$ are both greater than 76 and less than 84.

## On Your Own

 WRITE MathChoose a way to solve.
Draw or write to explain.
5. FTDDEPER Some cows were in the field. 6 more cows walked there. Then there were
13 cows. How many cows were in the field before? $\qquad$ cows
6. THINK SMARIER Ed has

6 marbles. How many marbles can he put in a red cup and how many
 can he put in a blue cup?

$$
\ldots=6
$$

Personal Math Trainer
7. THINISMARTER + Lani has these number cards. Write each number in the box to show less than 24 or greater than 24.
22
27
23
21
25

| less than 24 | greater than 24 |
| :--- | :--- |
|  |  |

## IO More, 10 Less

Essential Question How can you identify numbers that are 10 more or 10 less than a number?

Number and Operations in Base Ten-1.NBT. 5

MATHEMATICAL PRACTICES MP.1, MP.3, MP. 6

Listen and Draw
Reव


Use monn eto solve. Draw quick pictures to show your work.

## Pat

## Tony

Jan

FOR THE TEACHER • Read the following problem.
Tony has 2 boxes of markers and 2 more markers. Pat has 10 fewer markers than Tony. Jan has 10 more markers than Tony. How many markers does each child have?

Mathematical Practices

Model and Draw

___ is 10 less than 33.
___ is 10 more than 33.

## Share and Show

Use mental math. Write the numbers that are 10 less and 10 more.
I.

$\square 70 \quad 4 \mathrm{I} \quad \square$

5.


24

6.


86

© 7. $\square$ 37


15

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$\qquad$

On Your Own

Complete the chart. Explain your method.

| IO Less |
| :--- |
| 9. |

## Problem Solving • Applications (Redra <br> WRITE Math

Choose a way to solve. Draw or write to show your work.
17. The plant has 4 fewer ladybugs on it than the tree. The tree has 7 ladybugs on it. How many ladybugs are on the plant?
18. Amy has 7 ribbons. Charlotte has 9 ribbons. How many more ribbons does Charlotte have than Amy?

$\qquad$ more ribbons
19. FTDEEPER Margo has 28 stamps.

Chet has 10 more stamps than
Margo. Luis has 10 more stamps than Chet. How many stamps does Luis have?

20. THINIS SMARETE + Draw a quick picture to show a number that is IO less than the model.


What is the new number? $\square$

FOR MORE PRACTICE:
Standards Practice Book

Name $\qquad$

## (Vhapter 7 Review/Test

I. Compare. Is the math sentence true?

Choose Yes or No.
54 is greater than 45 .

- Yes
No
37 is greater than 29.
- Yes
No
$29>43$
○ Yes
No
$55>45$
- Yes
○ No

2. Choose all the numbers that are less than 71.

- 62
- 80
- 70
- 49

3. Circle the symbol that makes the math sentence true.


4. Megan has these number cards. Write each number in the box to show less than 33 or greater than 33.

| 37 | 34 | 31 | 35 |  |
| :--- | :--- | :--- | :--- | :--- |


| less than 33 | greater than 33 |
| :--- | :--- |
|  |  |

5. Use mental math. Complete the chart.

| 10 Less |  | IO More |
| :---: | :---: | :---: |
| - | 33 | - |
| - | 57 | - |

6. Write a number that is less than 30 .

How do you know your number is less than 30 ?

310 three hundred ten
$\qquad$
7. Choose all the math sentences that are true.

- $35<47$
- $24=39$
- $14>41$
- $48=48$
- $23>21$

8. James circles the numbers that are less than 87 or greater than 91. Which numbers does James circle?


James circles $\qquad$ and $\qquad$ .
9. Draw a quick picture to show a number that is 10 more than the model.

$|$| 0 |
| :--- | :--- |
| 0 |
| 00 |
| 00 |
| 00 |

10. Compare. Is the math sentence true?

Circle yes or no.
49 is greater than 57.

- Yes
No
54 is greater than 53.
- Yes
No
$60>50$
- Yes
- No
$72>68$
- Yes
- No
II. Write $<,>$, or $=$ to compare the numbers.

$$
\begin{aligned}
&\|\| \| \left\lvert\, \begin{array}{ll}
0 & \\
0 & \\
00 & \\
00 & \\
00
\end{array}\right. \\
& 48-36
\end{aligned}
$$

How do the drawings help you compare the numbers?
12. Circle the words that make the sentence true.


## Chapter

 8
## Two-Digit Addition and Subtraction

## curious About Math wion courara

There are 4 boxes of oranges on a table. Each box holds IO oranges. How many oranges are there?
$\qquad$

## Show What You Know

## Add and Subtract

Use and to add. Write the sum.
Break apart © to subtract.
Write the difference.


Count Groups to 20
Circle groups of 10 . Write how many.
2.

3.


## Use a Hundred Chart to Count

Touch and count. Shade the last number counted.
4. Start at I and count to 20.
5. Start at 30 and count to 56 .
6. Start at 77 and count to 93 .

This page checks understanding of important skills needed for success in Chapter 8.

| 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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314 three hundred fourteen
$\qquad$

## Vocabulary Builder

## Visualize It

Sort the review words from the box.


## Understand Vocabulary

Use a review word to complete each sentence.
I. 8 is the for $17-9$.
2. 17 is the $\qquad$ for $8+9$.
3. When you $\qquad$ 4 to 8 , you find the sum.
4. When you $\qquad$ 4 from 8, you find the difference.

## Gome Neighborhood Sums

Materials

Play with a partner.
(1) Put your 8 on START.
(2) Spin the $\frac{1}{3}$. Move that number of spaces.
(3) Make a ten to help you find the sum.
(4) The other player uses 앙 to check.
(5) If you are not correct, you lose a turn.
(6) The first player to get to END wins.

## 田

| $\begin{array}{r}2 \\ 4 \\ +8 \\ \hline\end{array}$ | Move ahead one space. | $\begin{array}{r} 4 \\ 9 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ 4 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ 1 \\ +6 \\ \hline \end{array}$ | END |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r}4 \\ 6 \\ +3 \\ \hline\end{array}$ | $\begin{array}{r}5 \\ 3 \\ +7 \\ \hline\end{array}$ | $\begin{array}{r}9 \\ 7 \\ +1 \\ \hline\end{array}$ | Move back one space. | $\begin{array}{r}3 \\ 7 \\ +7 \\ \hline\end{array}$ | $\begin{array}{r} 5 \\ 8 \\ +5 \\ \hline \end{array}$ |
| $\begin{array}{r} 6 \\ 6 \\ +4 \\ \hline \end{array}$ |  |  |  |  |  |
|  | START | $\begin{array}{r}2 \\ 4 \\ +8 \\ \hline\end{array}$ | Move ahead one space. | $\begin{array}{r}6 \\ 1 \\ +9 \\ \hline\end{array}$ | $\begin{array}{r} 8 \\ 8 \\ +2 \\ \hline \end{array}$ |

## Add and Subtract Within 20

Essential Question What strategies can you use to add and subtract?

Operations and Algebraic Thinking-1.0A. 6
MATHEMATICAL PRACTICES MP.1, MP.3, MP. 6

## Listen and Draw

What is $5+4$ ?
Use a strategy to solve the addition fact. Draw to show your work.


FOR THE TEACHER • Have children choose and model a strategy to solve the addition fact. Then have them draw to show their work.

Explain What strategy did you use to find the answer?

## Model and Draw

Think of a strategy you can use to add or subtract.

What is $14-6$ ?


I can use a
$\begin{aligned} 8 & =14 \\ \text { So, } 14-6 & =8\end{aligned}$

Share and Show

Add or subtract.
I. $5+3=$ $\qquad$ 2. $10-5=$ $\qquad$ 3. $3+6=$
$\qquad$
4. $12-5=$
5. $15-9=$
6. $5+7=$ $\qquad$
7. $8+7=$ $\qquad$
8. $9-7=$ $\qquad$ 9. $5+5=$ $\qquad$
10. $12-7=$ $\qquad$

⒈. $18-9=$
12. $9+4=$ $\qquad$
13. $2+7=\ldots$ 14. $5-1=\ldots \quad 15.9+1=$
16. $7-6=\ldots$ ब17.13-4=_6. $2+6=$

318 three hundred eighteen
$\qquad$

## On Your Own

## mathenatical Pracilce 3 Apply Add or subtract.




| 31. |
| :---: |
|  |  |


43. THMNVSMmaize Jamal thinks of an addition fact. The sum is 15 . One addend is 8 . What is a fact Jamal could be thinking of?



## Problem Solving • Applications a drald

## WRITE Math

Solve. Write or draw to explain.
44. THINVSMARIEV There are 9 ants on a rock.

Some more ants get on the rock. Now there are I8 ants on the rock. How many more ants got on the rock?

45. EПDEEPRE Fill in the blanks. Write a number sentence to solve.
Lin sees $\qquad$ bees. Some
bees flew away. Now there are $\qquad$ bees. How many bees flew away?
$\qquad$

$\qquad$

$\qquad$ bees
46. THINKSMARIEV Write each addition or subtraction in the box below the answer.
$7+9$
$6+1$
17-8
| $4-7$
$8+8$

| 7 | 9 | 16 |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |

Essential Question How can you add tens?
Number and Operations in Base Ten-1.NBT. 4

## Listen and Draw figuld

MATHEMATICAL PRACTICES
MP.2, MP. 7

Choose a way to show the problem. Draw a quick picture to show your work.


Explain why there will be no ones in your answer when you add $20+30$.

## Model and Draw

How can you find $30+40 ?$

$$
30+40=70
$$

$\qquad$ tens

Use (e. Draw to show tens. Write the sum. Write how many tens.

1. $20+40=$ $\qquad$
2. $30+30=$ $\qquad$
©3. $40+50=$ $\qquad$ ©4. $50+30=$
$\qquad$

## On Your Own


Write the sum. Write how many tens.
5. $40+40=$
6. $70+20=$
8. $60+30=$
tens
7. $10+80=$ $\qquad$
___ tens $\qquad$ tens
9. ETDDEPER Draw two groups of tens you can add to get a sum of 50 . Write the number sentence.


## Problem Solving • Applications

WRITE Math
10. THINISMAARTER Complete the web. Write the missing addend to get a sum of 90 .

II. THINKSMAATIR Choose all the ways that name the model.

- 4 ones and 3 tens

- 4 tens and 3 tens

○ 7 tens

- 70


## Listen and Draw (roodd

MATHEMATICAL PRACTICES
MP.3, MP. 8

Choose a way to show the problem.

## Draw a quick picture to show your work.



## Model and Draw

How can you find $80-30$ ?

$$
80-30=60
$$


tens

## Share and Show

Use
Write the difference. Write how many tens.

1. $60-20=$ $\qquad$
$\qquad$
tens
$2.70-30=$ tens

な3. $80-20=$

$$
64.90-40=
$$

$\qquad$ tens
$\qquad$

## On Your Own

##  <br> Write the difference. Write how many tens.

5. $80-40=$ $\qquad$
6. $90-70=$ $\qquad$
tens
7. $70-50=$
8. $30-30=$ $\qquad$
$\qquad$ tens $\qquad$ tens

## THINVI SMARTEP Solve.

9. Jeff has 40 pennies. He gives some to Jill. He has 10 pennies left. How many pennies does Jeff give to Jill?

pennies
$\qquad$

## V Mid-Chapter Checkpoint

## Concepts and Skills

Add or subtract. (1.0A.6)
I. $\begin{array}{r}4 \\ +8 \\ \hline\end{array}$
2. $\begin{array}{r}15 \\ -\quad 7 \\ -\end{array}$
3. $\begin{array}{r}9 \\ -6 \\ \hline\end{array}$
4. $\begin{array}{r}3 \\ +1 \\ \hline\end{array}$
5. $\begin{array}{r}10 \\ +\quad 6 \\ \hline\end{array}$
6. $\begin{array}{r}11 \\ -\quad 2 \\ \hline\end{array}$

Use Elaw to show tens.
Write the sum. Write how many tens. (i.ngr.a)
7. $30+50=$
8. $40+20=$ $\qquad$
tens $\square$

Use
Write the difference. Write how many tens. (1..евт.6)
$9.90-20=$
10. $60-40=$
tens
II. THINISMARIEP Mike has 60 marbles. He gives 20 to Kathy. How many marbles does Mike have left?
Show your work. (i.ne.6)
marbles
$\qquad$

## Listen and Draw (acald)

Use the hundred chart to solve the problems.

| 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 |

Use a Hundred Chart to Add
Essential Question How can you use a hundred chart to count on by ones or tens?

## Model and Draw

Count on a hundred chart to find a sum.

Start at 24.
Count on four ones.
25, 26, 27, 28
$24+4=$

Start at 31.
Count on four tens.
4I, 5I, 6I, 71

| 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 |

$31+40=$

## Share and Show

## MATH

Use the hundred chart to add.
Count on by ones or tens.

2. $57+30=$ $\qquad$

ब3. $91+5=$
©4. $18+50=$ $\qquad$
$\qquad$

| On Your Own | I | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| How can you use the hundred chart to find each sum? | 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 |
| $32+5=$ | 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 |
| $48+30=$ | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
|  | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

(Маमी Use the hundred chart to add.
Count on by ones or tens.
5. $13+70=$ $\qquad$
6. $22+6=$ $\qquad$
7. $71+3=$
$\qquad$ 8. $49+50=$ $\qquad$
9. $53+4=$ 10. $25+40=$ $\qquad$
II. FIDEEPER Solve. Show your work.

$$
31+20+40=
$$

$\qquad$

## Problem Solving • Applications (Wald WRITE Math

Choose a way to solve. Draw or write to show your work.
12. THINISMAREIE/ Rae put 20 books away.

She put 20 more books away, then II more. How many books did Rae put away?

books
Personal Math Trainer
13. THiNKKMAARTR + Use the hundred chart to add. Count on by ones or tens.

$$
62+9=
$$

| 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 |

Explain how you used the chart to find the sum.

## Use Models to Add

Essential Question How can models help you add ones or tens to a two-digit number?

Number and Operations in
Base Ten-1.NBT. 4
MATHEMATICAL PRACTICES
MP.4, MP. 6

## Listen and Draw

## Draw to show how you can find the sum.



## Model and Draw



Add tens to a two-digit number.
$\left\|\left\|_{1} \quad\right\|\right\|\left\|\left\|\left\|\|_{0}\right.\right.\right.$

$$
32+40=
$$

## Share and Show

Use Draw to show how to add the ones. Write the sum.
I. $27+2=$ $\qquad$
©2. $41+5=$ $\qquad$

Use Draw to show how to add the tens. Write the sum.
3. $13+50=$ $\qquad$
©4. $28+30=$ $\qquad$
$\qquad$

## On Your Own

## 

Use
Add the ones or tens. Write the sum.
5. $65+3=$ $\qquad$ 6. $81+8=$ $\qquad$
7. $54+20=$
$\qquad$
8. $32+10=$ $\qquad$
9. $95+2=$ $\qquad$
10. $25+60=$ $\qquad$
I. $2+54=$ $\qquad$ 12. $70+29=$
(EIDEEPER) Make a sum of 45. Draw a quick picture. Write the number sentence.
13. Add ones to a two-digit number.

$$
\ldots+\ldots=45
$$

14. Add tens to a two-digit number.

$$
\ldots+\ldots=45
$$

## Problem Solving • Applications eall

WRITE Math

Choose a way to solve. Draw or write to show your work.
15. Rita picks 63 strawberries. Then she picks 30 more. How many strawberries does Rita pick?
16. THINVSMAEIET Kenny planted two rows of corn. He used 20 seeds in each row. He has 18 seeds left. How many seeds of corn did Kenny have?
17. There are 7 oak trees and 32 pine trees in the park. How many trees are in the park?

18. THINISMARIE/ Use the model. Draw to show how to add the tens.

$42+20=$

TAKE HOME ACTIVITY • Give your child the addition problems $25+3$ and $25+30$. Ask your child to explain how to solve each problem.

FOR MORE PRACTICE:
Standards Practice Book

## Make Ten to Add

Essential Question How can making a ten help you add a two-digit number and a one-digit number?

Number and Operations in Base Ten-1.NBT. 4 MATHEMATICAL PRACTICES MP.2, MP. 5

## Listen and Draw (\%arlid

Use E. Draw to show how you can find the sum.
$21+6=$ $\qquad$ .

FOR THE TEACHER • Read the following problem.
Sally has 21 stickers in her sticker book. She gets 6 more stickers. How many stickers does Sally have now?

Explain how your model shows the sum of $21+6$.

## Model and Draw

Make a ten to find $37+8$.

|  | What can I add to 7 to make IO? |  |
| :---: | :---: | :---: |
| $\left\\|\\| \begin{array}{lll}0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0\end{array}\right.$ |  | $\left\\|\\| \begin{array}{\|l\|l} \\ & \\ 0 & \\ 0 \\ 0 & 0\end{array}\right.$ |
| $37+8$ | $37+3+5$ | $40+5$ |


$40+5=45$ So, $37+8=45$.

## Share and Show

## MATH <br> BOARD

Use you make a ten. Find the sum.
©1. $49+3=$ ?
$\qquad$
So, $49+3=$ $\qquad$
$\qquad$

## On Your Own

## 

Use ninal inaw to show how you make a ten. Find the sum.
2. $39+7=$ $\qquad$
3. $72+9=$
4. $58+5=$

ITHINKSMARTEP Solve. Write the numbers.
5.
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So, $46+7=$ $\qquad$ .
6. $53+8$


Moth
on the
Wetil
on the
-oot

So, $53+8=$ $\qquad$

## Problem Solving • Applications ward

## WRITE Math

Choose a way to solve. Draw or write to show your work.
7. THINKSMAETEZ Koby puts 24 daisies and 8 tulips in a vase. How many flowers are in the vase?
$\qquad$ flowers
8. FIDEEPER There are 27 ducklings
in the water. 20 of them come
out of the water. How many ducklings are still in the water?
9. Write the missing addend.
$46+\square=52$
10. THINis SMARIER Use the model. Draw to show how to make a ten.


34


8
$\qquad$

## Use Place Value to Add

Essential Question How can you model tens and ones to help you add two-digit numbers?

Listen and Draw Foild

Number and Operations in Base Ten-1.NBT. 4
MATHEMATICAL PRACTICES
MP.1, MP.2, MP. 7

## Model the problem with <br> Draw a quick picture to show your work.



## Model and Draw

How can you use tens and ones to add?

$$
\begin{array}{r}
35 \\
+38 \\
\hline
\end{array}
$$



Share and Show
MATH
BOARD
Draw a quick picture.
Use tens and ones to add.


342 three hundred forty-two
$\qquad$

## On Your Own

## 

Draw a quick picture. Use tens and ones to add.



THINKSMARTEP Solve.
4. $28+17$

$+15=$ $\qquad$

So, $28+17=$ $\qquad$ .
$5.59+13$
$59+\ldots+12$ $+12=$

So, $59+13=$.

## Problem Solving • Applications aid

## WRITE Math

6. THINVSMAARIEV Draw a quick picture to solve. Kim has
24 marbles. Al has 47 marbles.
How many marbles do they have?
marbles

## 7. FIDDEPER Choose two addends

from II to 49. Draw them.
Add in any order to solve.

8. THINKSMARIER Write the addition that the model shows. Solve.



TAKE HOME ACTIVITY • Write the numbers 42 and I7. Have your child tell how to find the sum by adding the tens and ones.

## Problem Solving • <br> Addition Word Problems

 Lesson 8.8Essential Question How can drawing a picture help you explain how to solve an addition problem?

Number and Operations in
Base Ten-1.NBT. 4
MATHEMATICAL PRACTICES MP.1, MP.6, MP. 8

Kelly gets 6 new toy cars.
He already has 18 toy cars.
How many does he have now?


## Unlock the Problem

## What information do I need to use?

Kelly has
 cars. He gets $\qquad$ more cars.

Show how to solve the problem.

## What do I need to find?



Kelly has now


\author{

}

## Try Another Problem

Draw and write to solve.
Explain your reasoning.
I. Aisha picks 60 blueberries to make a pie. Then she picks
12 more to eat. How many blueberries does Aisha pick?
blueberries

2. Yuri collects 21 cans for the school food drive. Leo collects 36 cans. How many cans do Yuri and Leo collect?
$\qquad$ cans


Explain the addition strategy you used to solve Exercise I.
$\qquad$

## Share and Show

## 

Draw and write to solve.
©3. Tyra sees 48 geese in the field. Then she sees 17 more geese in the sky. How many geese does Tyra see? ___ geese

©4. Jade paints 35 circles and 45 triangles in art class. How many shapes does Jade paint?
$\qquad$
5. THIN/KSMANIER It takes 10 hops to get across the yard. How many hops does it take to get across the yard and back?
$\qquad$ hops


## On Your Own

Choose a way to solve. Draw or write to explain.
6. THINKSMARIE Julian sells 3 books of
tickets for the school fair. Each book has
20 tickets. How many tickets does Julian sell?
7. FIDEEPER I have some red roses and pink roses. I have 14 red roses. I have 8 more pink roses than red roses. How many roses do I have?
$\qquad$

Personal Math Trainer
8. THINVSMARIE + Ella sees 27 . She sees 28 . How many $\triangle$ does Ella see? Circle the number that makes this sentence true.

$\qquad$
Related Addition and Subtraction
Essential Question How can you use a hundred chart to show the relationship between addition and subtraction?

Number and Operations in Base Ten-1.NBT. 4
MATHEMATICAL PRACTICES
MP.2, MP.3, MP. 7

## Listen and Draw

Use the hundred chart to solve the problems.

| 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 |

 Mathematical Practices Describe how you can use a hundred chart to find the sum and the difference.

## Model and Draw

You can use a hundred chart to find a sum and a difference.

```
Start at 29. Count up four tens. 39, 49, 59, 69
```

$$
29+40=69
$$

Start at 69. Count back four tens. 59, 49, 39, 29

| 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 |

$69-40=\underline{29}$

## Share and Show

Use the hundred chart to add and subtract.
Count up and back by tens.
© $1.56+20=$
$76-20=$ $\qquad$
๑2. $48+50=$
$98-50=$ $\qquad$
$\qquad$

## On Your Own

 hundred chart to find the sum and the difference?
$28+60=$
$88-60=$

| 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 |

 to add and subtract. Count up and back by tens.

$$
\begin{array}{r}
3.36+30= \\
66-30=
\end{array}
$$

$$
\text { 5. } 25+70=
$$

$\qquad$

$$
95-70=
$$

$\qquad$
$4.73+10=$
$83-10=$
6. $18+40=$
$58-40=$ $\qquad$
7. THINVSMARIED Solve.

There are 73 bees in a hive. 10 bees fly away. Then 10 more bees fly into the hive. How many bees are in the hive now?


## Problem Solving • Applications Warld

## WRITE Math

Solve. Draw or write to show
your work.
8. THINKSMARIER There are 38 ants on a rock. IO move to the grass. IO walk up a tree. How many ants are on the rock
 now?
9. FIDEEPER There are 27 birds at the park. 50 more birds come. Then 50 fly away. How many birds are at the park now?
$\qquad$
10. THIN/S SMARTEX Match the math sentences that count up and back by tens.
$25+40=? \quad 65+20=? \quad 45+30=?$
$65-40=? \quad 75-30=? \quad 85-20=?$

## Practice Addition and Subtraction

Essential Question What different ways can you use to add and subtract?

Number and Operations in Base
Ten-1.NBT.4, 1.NBT. 6 Also 1.0A. 6
MATHEMATICAL PRACTICES MP.1, MP.3, MP. 8

## Listen and Draw RGOl Norl

## Draw to show the problem.

Then solve.


## Model and Draw

What ways have you learned to add and subtract?

$$
5+9=
$$

$\qquad$

## THINK

$9+5$ is the same as $10+$ ?

$$
50-30=
$$

$\qquad$

## THINK

5 tens -3 tens.

$$
51+21=
$$

## THINK

5 tens +2 tens. I one + I one.

## Share and Show

## MATH <br> BOARD

Add or subtract.

$$
\text { 1. } 30+60=\_2.73+5=\ldots \text { 3. } 10-4=
$$

4. $29+4=$ 5. $9+9=$ 6. $5+6=$

$$
\text { 7. } 25+54=\ldots .15-8=\ldots 9.40+10=
$$

$\qquad$
10. $40-10=-11.14-7=$ $\qquad$ 12. $90-70=$
$13.86+12=$ $\qquad$ 14. $\mid+9=$ $\qquad$ 15. $6+7=$
16. $9-2=\ldots \quad \begin{aligned} & \text { 17. } \\ & \text { 18. } \\ & \text { 18. } \\ & 80 \\ & 50\end{aligned}+11=$

354 three hundred fifty-four
$\qquad$

## On Your Own



22. $\begin{array}{r}41 \\ +36 \\ \hline\end{array}$
26. $\begin{array}{r}3 \\ +8 \\ \hline\end{array}$

34. 30
$+50$
37. $\begin{array}{r}20 \\ +13\end{array} \quad \begin{array}{r}70 \\ -50 \\ \hline\end{array}$
41. 20
$+70$
42. $\begin{array}{r}11 \\ -\quad 7 \\ \hline\end{array}$

## Problem Solving • Applications World

WRITE Math
Solve. Write or draw to explain.
43. THINKSMARTER Jane drew some stars. Then she drew 9 more stars. Now there are 19 stars. How many stars did Jane draw first?

$\qquad$
44. THINKSMARIR Adel drew 10 more stars than Charlie. Charlie drew 24 stars. How many stars did Adel draw?
45. (EIDEEPER Write three ways to get a sum of 49 .

46. THINVSMARTEV Find the sum of 23 and 30. Use any way to add.

$$
23+30=
$$

$\qquad$
Explain how you solved the problem.

Name $\qquad$

## W Chapter 8 Review/Test

I. Write each addition or subtraction problem in the box below the answer.

$$
\begin{array}{llll|l}
7+2 & 3+3 & 15-9 & 8+6 & 14-5
\end{array}
$$


2. Choose all the ways that name the model.
11

- 2 tens and 3 tens
- $20+30$
- 5
- 50

3. Sasha has 70 stickers. She uses 40 of them. How many stickers are left? Show your work.
$\square$
4. Use the hundred chart to add.

Count on by ones or tens.
$37+5=$
Explain how you used the chart to find the sum.

| 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 |

5. Use the model. Draw to show how to add the tens.

$33+20=$ $\qquad$

Name $\qquad$
6. Use the model. Draw to show how to make a ten.

$26+7=$ $\qquad$
7. Write the addition sentence that the model shows. Solve.

| Tens | Ones |
| :---: | :---: |
| HEFE |  |
|  |  |
|  |  |
|  |  |

$\qquad$
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8. What is the difference?

I5

- 7
$\circ 7 \circ 8 \circ 10 \circ 12$

9. What is the sum?

40
+50
+
$\circ 10 \circ 70 \circ 80 \circ 90$
10. Luis has 16

He has $38 \%$.
How many leaves does Luis have? Circle the number that makes the sentence true.

Luis has | 48 |
| :---: |
| 54 |
| 59 | leaves.

II. Match the math sentences that count up and back by tens.

$$
38+30=? \quad 48+40=? \quad 38+20=?
$$

$58-20=?$
$68-30=?$
$88-40=?$
12. Find the sum of 62 and I5. Use any way to add.

$$
62+15=
$$

Explain how you solved the problem.
$\square$

## Critical Area Measurement and Doto




## Things We Use for Rainy Weather

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

Use to complete the graph.
How many raincoats do you see?
How many umbrellas do you see?

## SCIENCE

Describe rainy weather.



Use to complete the graph.
How many sunglasses do you see?
How many sun hats do you see?


Whatever the weather,
We play together.

## SCIENCE

Describe the weather shown here.
$\qquad$

## Write About the Story

Use . Show some sun hats and sunglasses in each category on the graph.

Vocabulary Review category classify graph

Things We Use for Sunny Weather


WRITE Math Write a sentence telling how many sun hats there are. Write a sentence telling how many sunglasses there are.
$\qquad$
$\qquad$
$\qquad$

$\qquad$
$\qquad$
$\qquad$
$\qquad$


## More or Fewer?

I. Show more raincoats than umbrellas. Use in each category.

Things We Use for Rainy Weather


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

2. Show fewer raincoats than umbrellas. Use in each category. Things We Use for Rainy Weather

umbrellas


MATH BOARD

Write a story problem about raincoats and umbrellas. Tell how to classify each item in the correct category.


Name $\qquad$

## Show What You Know

## Bigger and Smaller

Circle the bigger object.
I.


Circle the smaller object.
2.


## Compare Length

Circle the longer object.
Draw a line under the shorter object.
3.


## Numbers 1 to 10

Write each number in order to 10 .
5.


This page checks understanding of important skills needed for success in Chapter 9.
$\qquad$

## Vocabulary Builder

## Visualize It

Sort the review words from the box.

| Review |  |
| :--- | :--- |
| Words |  |
| nine | ten |
| eleven | twelve |
| long | longer |
| short | shorter |



## Understand Vocabulary

Complete the sentences with the correct word.
I. A crayon is $\qquad$ than a marker.
2. A toothbrush is $\qquad$ than a paper clip.

Write the name below the number.
3.
9
10
11
12

## Chapter 9

## Game Measure

 UP!(4) Compare the lengths of the two objects.
(5) The player with the longer object places a on the space. If both objects are the same length, both players put a on the board.
6 Keep playing until one person gets to END. The player with the most $\bigcirc$ wins. and takes that object.
Play with a partner.
(1) Put 88 on START.
(2) Spin the $1 / 1^{2}$. Move your 8
that many spaces. Take that
(2) Spin the $1 / 2$. Move your 8
that many spaces. Take that object.
3 Your partner spins, moves,


## Order Length

Essential Question How do you
order objects by length?

Measurement and Data-
1.MD. 1

MATHEMATICAL PRACTICES
MP.1, MP.3, MP. 6

## Listen cin ircy

Use objects to show the problem. Draw to show your work.

FOR THE TEACHER • Read the problem. Have children use classroom objects to act it out. Rosa has something that is longer than the drinking straw. She has another object that is shorter than the key. What objects might she have?

Explain Compare the straw and the key. Which is longer? Which is shorter?

## Model and Draw

Order three pieces of yarn from shortest to longest. Draw the missing piece of yarn. shortest


## I

longest
1

## Share and Show

Draw three lines in order from shortest to longest.
I. shortest
2.

3. longest

Draw three lines in order from longest to shortest.
©4. longest
d5.
66. shortest

374 three hundred seventy-four
$\qquad$

## On Your Own

## M.



Draw three crayons in order from shortest to longest.

```
7. shortest
```

8. 

## 9. longest

Draw three crayons in order from longest to shortest.

## 10. longest

II.

12. shortest
13. THINK SMAARIER Complete each sentence.


## Problem Solving • Applications

Solve.
14. EIDEEPER Draw four objects in order from shortest to longest.

## Objects

15. THINK SMARTEV The string is shorter than the ribbon. The chain is shorter than the ribbon.
Circle the longest object.

string
ribbon
chain
16. THINVSMARIEV Match each word on the left to a drawing on the right.
shortest

longest

## Indirect Measurement

Essential Question How can you compare lengths of three objects to put them in order?

## Measurement and Data-

 1.MD. 1MATHEMATICAL PRACTICES
MP.1, MP.3, MP. 4

## Listen and Draw

Clue I: A yellow string is shorter than a blue string.
Clue 2: The blue string is shorter than a red string.
Clue 3: The yellow string is shorter than the red string.

## Model and Draw

Use the clues. Write shorter or longer to complete the sentence. Then draw to prove your answer.

Clue I: A green pencil is longer than an orange pencil.
Clue 2: The orange pencil is longer than a brown pencil.

So, the green pencil is $\qquad$ than the brown pencil.

## brown <br> orange

green

Share and Show
Use the clues. Write shorter or longer to complete the sentence. Then draw to prove your answer.
©।. Clue I: A red line is shorter than a blue line.
Clue 2: The blue line is shorter than a purple line.
So, the red line is - -------- than the purple line.

| red |  |
| :--- | :--- |
| blue |  |
| purple |  |

$\qquad$

## On Your Own

(unginci () Analyze Relationships Use the clues.
Write shorter or longer to complete the sentence.
Then draw to prove your answer.
2. Clue I: A green line is shorter than a pink line.

Clue 2: The pink line is shorter than a blue line.
So, the green line is $\xlongequal{--------}$ than the blue line.

| green |  |
| :--- | :--- |
| pink |  |
| blue |  |

3. Clue I: An orange line is longer than a yellow line. Clue 2: The yellow line is longer than a red line. So, the orange line is $\xlongequal{--------}$ than the red line.


## Problem Solving • Applications

4. THIN/KSMARIER The ribbon is longer than the yarn. The yarn is longer than the string. The yarn and the pencil are the same length. Draw the lengths of the objects next to their labels.

| ribbon |  |
| :--- | :--- |
| yarn |  |
| pencil |  |
| string |  |

5. THINK SMARIEP Is the first line longer than the second line? Choose Yes or No.


TAKE HOME ACTIVITY • Show your child the length of one object. Then show your child an object that is longer and an object that is shorter than the first object.

FOR MORE PRACTICE:
Standards Practice Book

## Name

$\qquad$

## Use Nonstandard Units to Measure Length

Essential Question How do you measure length using nonstandard units?

Measurement and Data1.MD. 2

MATHEMATICAL PRACTICES MP.2, MP.6, MP. 8

Use $\square$. Draw to show the problem.

How do you draw the boat to be the right length? Explain.

## Model and Draw

You can use $\square$ to measure length.
Write how many.

about $\qquad$

## Share and Show

Use real objects. Use $\square$ to measure.
I.

about $\qquad$
$\square$
2.

about $\qquad$


ब3.


Name $\qquad$

## On Your Dwn

Use real objects. Use $\square$ to measure.
5.

## 0000000


about $\qquad$ $\square$
6.

about $\qquad$
7.

about $\qquad$
8.

$\qquad$
9. THINKSMARIE The green yarn is about $2 \square$ long.

# About how long is the blue yarn? 

## Problem Solving • Applications erid

WRITE Math

## आuritici ( Evaluate Reasonableness Solve.

10. Mark measures a real glue stick with About how long is a glue stick? Circle the answer that is most reasonable. about $I \square$ about $4 \square$ about 10
II. EIDEEPER Bo has 4 ribbons. Circle the ribbon that is less than $3 \square$ long but more than I long. $\square$ $\square$

11. THINKSMARTE + The crayon is about 4 tiles long. Draw tiles below the crayon to show its length.

$\square$

FOR MORE PRACTICE:
Standards Practice Book

## Make a Nonstandard Measuring Tool

Essential Question How do you use a nonstandard measuring tool to measure length?

## Listen and Draw worn

## Circle the name of the child who

 measured correctly.


FOR THE TEACHER • Read the problem. Mateo and Alli measure the same pencil. Mateo says it is about 4 paper clips long. Alli says it is about 3 paper clips long. Circle the name of the child who measured correctly.

Explain how you know who measured correctly.

## Model and Draw

Make your own paper clip measuring tool like the one on the shelf. Measure the length of a door. About how long is the door? $\qquad$ $\Longleftrightarrow$

## Share and Show

Use real objects and the measuring tool you made.
Measure. Circle the longest object.
Underline the shortest object.

about $\qquad$ $\Longrightarrow$
2.

about $\qquad$

about $\qquad$ $\rightleftarrows$
4.

about $\qquad$
$\qquad$

## On Youp Own

## 

Use the measuring tool you made.
Measure real objects.
5.

6.

$\qquad$ $\Longrightarrow$
7.

$\qquad$ $\Longleftrightarrow$
8.

$\qquad$
$\qquad$
© Houghton Mifflin Harcourt Publishing Company • Image Credits: (cr) @PhotoDisc/Getty Images
9. [TDDEPRER Cody measured his real lunch box. It is about $10 \Longleftrightarrow$ long. About how long is Cody's real pencil?
about $\qquad$ $\Longrightarrow$

Cody's lunch box and pencil

## Problem Solving • Applications ward

## WRITE Math

Solve.
10. THINK sMARIE) Lisa tried to measure the pencil. She thinks the pencil is 5 paper clips long. About how long is the pencil?

about $\qquad$ $\Longrightarrow$
II. THINVSMARTIE Use the $\Longleftrightarrow$ below. About how long is the paintbrush?

about $\qquad$ $\Longrightarrow$

## Problem Solving • Measure and Compare

Essential Question How can acting it out help you solve measurement problems?

Measurement and Data1.MD. 2

MATHEMATICAL PRACTICES MP.1, MP. 3

The blue ribbon is about $4 \Longleftrightarrow$ long. The red ribbon is $\mathrm{I} \Longleftrightarrow$ long. The green ribbon is $2 \Longleftrightarrow$ longer than the red ribbon. Measure and draw the ribbons in order from shortest to longest.

## Unlock the Problem

## What do I need to find?

 order the ribbons from

What information do I need to use?


Show how to solve the problem.

HOME CONNECTION • Have your child act out a measurement problem by finding the lengths of 3 objects and ordering them from shortest to longest.

## Try Another Problem

Zack has 3 ribbons. The yellow ribbon is about $4 \leftrightharpoons$ long. The orange ribbon is $3 \leftrightharpoons$ shorter than the yellow ribbon. The blue ribbon is $2 \leftrightharpoons$ longer than the yellow ribbon.
Measure and draw the ribbons in order from longest to shortest.

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

about $\qquad$ $\Longrightarrow$

2. 

about

3.
about $\qquad$


Mathematical Practices
How many paper clips shorter is the orange ribbon than the blue ribbon? Explain.
$\qquad$

## Share and Show

Solve. Draw or write to explain.
(6) 4. (EIDEEPER) Lisa measures her shoe to be about $5 \Longleftrightarrow$ long. Measure and draw an object that is $3 \Longleftrightarrow$ shorter than her shoe. Measure and draw an object that is $2 \Longleftrightarrow$ longer than her shoe.
5. THINKSMARTE + Noah measures a marker to be about $4 \rightleftharpoons$ long and a pencil to be about $6 \Longleftrightarrow$ long. Draw an object that is $I \Longrightarrow$ longer than the marker and $I \Longleftrightarrow$ shorter than the pencil.

$\square$

FOR MORE PRACTICE:
Standards Practice Book
$\qquad$

## Mid-Chapter Checkpoint

## Concepts and Skills

Draw three crayons in order from shortest to longest. (1.mo.1)
I.

| shortest | $\mid$ |
| :--- | :--- |
|  | $\mid$ |
| longest | $\mid$ |

Use $\square$ to measure. (1.M0.2)
2.
about $\qquad$
3. THINK SMAATIER Kiley measures a package with her paper clip measuring tool. About how long is the package? ${ }^{(1.10 .2)}$

$\qquad$ Time to the Hour
Essential Question How do you tell time to the hour on a clock that has only an hour hand?

## Measurement and Data-

 1.MD. 3MATHEMATICAL PRACTICES MP.5, MP.6, MP. 7

## Listen and Draw

## Start at I.

Write the unknown numbers.


Mathematical Practices

Explain How are a clock face and ordering numbers alike?

## Model and Draw

What does this clock show?

The hour hand points to the 3 .
It is 3 o'clock.


Say three o'clock.
Write

## Share and Show

## MATH BOARD

Look at where the hour hand points.
Write the time.
I.

2.


© 6.


394 three hundred ninety-four
$\qquad$

## On Your Own

##  the hour hand points. Write the time.


10.
II.

$\qquad$
14.

15.

13.

$\qquad$

## Problem Solving • Applications

## WRITE Math

## 16. THINisMaetiel Which time is not the same?

Circle it.

17. EIDEEPER Manny leaves for school at 8 o'clock. Write and draw to show 8 o'clock.

18. THIN/SMAARIER Look at the hour hand.

What is the time?7:00
○ 8 o'clock

- 9 o'clock
- 12:00


## Time to the Half Hour

Essential Question How do you tell time to the half hour on a clock that has only an hour hand?

## Measurement and Data-

 1.MD. 3MATHEMATICAL PRACTICES MP.1, MP.2, MP. 8

## Listen and Draw

## Circle 4:00, 5:00, or between 4:00 and

5:00 to describe the time shown on the clock.


## Model and Draw

As an hour passes, the hour hand moves from one number

The hour hand is halfway between the 7 and the 8 . to the next number.

When a half hour has passed, the hour hand points halfway between two numbers.


## Share and Show

Look at where the hour hand points.
Write the time.

$\qquad$

## On Your Own

## Marifanalcal 2 Use Reasoning Look at where

 the hour hand points. Write the time.5. 


6.


7.

8.

$\qquad$
$------------\infty$
9.

10.

$\qquad$
$\qquad$

## Problem Solving • Applications

WRITE Math
II. THINKSMARTEI Tim plays soccer at half past 9:00. He eats lunch at half past I:00. He sees a movie at half past 2:00.


Look at the clock.
Write what Tim does.

Tim
12. HIDEEPER Tyra has a piano lesson at 5:00. The lesson ends at half past 5:00. How much time is Tyra at her lesson? Circle your answer.
half hour
hour
13. THINh SMAETEE What time is it? Circle the time that makes the sentence true.

$\qquad$

# Tell Time to the Hour and Half Hour 

Essential Question How are the minute hand and hour hand different for time to the hour and time to the half hour?

## Measurement and Data-

 1.MD. 3MATHEMATICAL PRACTICES
MP.2, MP.5, MP. 6

## Listen and Draw (acold

Each clock has an hour hand and a minute hand.
Use what you know about the hour hand to write the unknown numbers.


## Model and Draw

An hour has 60 minutes.


The clocks show 10:00.


A half hour has 30 minutes.



##  <br> 30 minutes after 10:00

## Share and Show

## MATH <br> BOARD

Write the time.
I.

$\sigma 2$.

© 3.

$\qquad$

## On Your Own

Manimict (6) Attend to Precision Write the time.

8.

१.


Circle your answer.
10. Sara goes to the park when both the hour hand and the minute hand point to the 12 .
What time does Sara go to the park?
I:00
12:00
12:30
II. THINVSMARTIE/ Mel goes to the park when the hour hand points to the 3 and the minute hand points to the 6. What time does Mel go to the park?


3:00 6:00

## Problem Solving • Applications <br> WRITE Dath

## Solve.

12. Linda wakes up at 6:30.

Draw to show what time Linda wakes up.

13. David left school at 3:30. Circle the clock that shows 3:30.

14. (EIDEEPER The hour hand points halfway between the 2 and 3 . Draw the hour hand and the minute hand. Write the time.

15. THINKISMARTER/Choose all the ways that name the time on the clock.

- half past 7:00
- $8: 30$
- half past 6:00
- 7:30 and tell what time it is.


## Practice Time to the Hour and Half Hour

Essential Question How do you know whether to

## Measurement and Data-

 1.MD. 3MATHEMATICAL PRACTICES
MP.1, MP.4, MP. 8 draw and write time to the hour or half hour?

## Listen

Circle the clock that matches the problem.
 that shows 1:30.

## Model and Draw

Where should you draw the minute hand to show the time?


## Share and Show

Use the hour hand to write the time.
Draw the minute hand.
I.

2.

3.

4.

© 6.

$\qquad$

## On Your Own

 write the time. Draw the minute hand.
7.

10.

9.

12.

13. THINKSMARIE What is the error? Zoey tried to show 6:00. Explain how to change the clock to show 6:00.

$\qquad$
-------------------------------------1
$\qquad$


## Problem Solving • Applications World

Solve.
14. Vince goes to a baseball game at 4:30. Draw to show what time Vince goes to a baseball game.
15. EIDEEPER Brandon has lunch at I o'clock. Write and draw to show what time Brandon has lunch.

16. THINi SMARITR Juan tried to show 8:30.

He made a mistake.


What did Juan do wrong? Explain his mistake.
$\square$
$\qquad$

## Chapter 9 Review/Test

I. Match each word on the left to a drawing on the right.

2. Is the first line shorter than the second line? Choose Yes or No.


○ YesNo


○ Yes


- Yes

○ No
3. The crayon is about 5 tiles long. Draw tiles below the crayon to show its length.

4. Use the $\Longrightarrow$ below. About how
long is the -

about $\qquad$ $\Longrightarrow$
5. Measure the $\square$. Use $\rightleftharpoons$.

about $\qquad$ $\longrightarrow$

about $\qquad$ $\longrightarrow$

The $\qquad$ is the shortest.

The $\qquad$ is the longest.

410 four hundred ten

Name $\qquad$
6. Look at the hour hand. What is the time?


- 9:00
- 10 o'clock
- II o'clock
- 12:00

7. What time is it? Circle the time that makes the sentence true.

8. Choose all the ways that name the time on the clock.


- half past 6:00
- half past II:00
- 6:00
- II:30

9. Draw the hand on the clock to show 9:30.

10. Lucy tried to show 5:00. She made a mistake.


Draw hands on the clock to show 5:00.


What did Lucy do wrong? Explain her mistake.
II. The - is shorter than the

The $\longrightarrow$ is longer than the
Draw the length of the

| - | $\longmapsto$ |
| :--- | :--- |
| - | $\longmapsto$ |
| - | 1 |

## Chapter

## 1 Represent Dato



Chapter 10
$\qquad$

## Show What You Know

## Make a Concrete Graph

Sort a handful of $\square$ and . Make a concrete graph.

I. How many are there? $\qquad$

## More, Fewer

2. Shade to show a set of fewer.

$\square$

## Draw Equal Groups

3. Draw a $\bigcirc$ below each picture to show the same number of objects.


This page checks understanding of important skills needed for success in Chapter 10.
$\qquad$

## Vocabulary Builder

## Visualize It

Complete the chart.
graph
more
fewer
most
fewest

Mark each row with a $\boldsymbol{V}$.

| Word | I Know | Sounds Familiar | I Do Not Know |
| :--- | :--- | :--- | :--- |
| graph |  |  |  |
| more |  |  |  |
| fewer |  |  |  |
| most |  |  |  |
| fewest |  |  |  |

## Understand Vocabulary

Use the review words. Label the groups.
I.



## chasio <br> Gome

## Materials - 16 - 16 - $\cdot 16$

Play with a partner.
(1) Spin the

(2) Put I cube of that color in the correct row of your graph.
(3) Take turns. Play until each partner has 5 turns.
(4) The player who went last spins again to get a color.
(5) The player with more cubes of that color wins. Spin again if you both have the same number of cubes of that color.

## Player I



Player 2


## Read Picture Graphs

Essential Question What do the pictures in a picture graph show?

## Measurement and Data-

 1.MD. 4MATHEMATICAL PRACTICES MP.3, MP. 4

## Listen and Draw (waild

Use [or Draw to show the cubes. Write how many more ${ }^{\circ}$.


## Model and Draw

| Children at the Playground |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $A A$ | swings | f | g | f | g |
| A | slide | j | g |  |  |

A picture graph uses pictures to show information.

Each ${ }^{\circ} \mathrm{x}$ stands for I child.
There are $\qquad$ children on the AA.

There are $\qquad$ children on the A.

There are more children on the

## Share and Show

Our Favorite Activity at the Fair

| 易 | animals | 찿 | 앛 | 앛 | 앛 | 앛 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 繁 | rides | 찿 | 앛 | 찿 | 앛 | 앛 | 찿 | 앛 |

Each ${ }^{\circ}$ stands for I child.
Use the picture graph to answer the question.
I. Which activity did more children choose? Circle.
2. How many children chose " ${ }^{\circ}$ ? ? ___ children
© 3. How many children chose
___ children
4. How many fewer children chose

$\qquad$

## On Your Own

| What We Drink for Lunch |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% milk | 앛 | 앛 | 앛 | ㅊ | 앛 | 앛 | 앛 | 앛 |
| 6 juice | 찿 | 찿 | 찿 |  |  |  |  |  |
| - water | 찿 | 찿 | 찿 | ㅊ | ㅊ |  |  |  |

Each ${ }^{*}$ stands for I child.
Use the picture graph to answer the question.
5. How many children
drink
children
7. How many fewer children drink ${ }^{(1)}$ ?
fewer children
9. THINKSMARIER How many children in all drink $=$ b, and

children
6. How many children in all drink 6 and ${ }^{\text {n }}$ ?
$\qquad$ children
8. How many more children drink than ?
more children
10. FIDEFPER 4 new children join the class. They drink at lunch. Now, how many more children drink than

## Problem Solving • Applications (Wald write Math



Each $f_{x}$ stands for I child.
(1) sentence to solve the problem.
II. How many children chose and altogether?

children

## 12. How many more children chose than <br>  <br> $\qquad$ <br> more children

13. FTDEEPER How many more children chose than def and altogether?
$\qquad$

$\qquad$
14. THINK SMARITE Use the graph at the top. How many children chose
$\qquad$ more children
$\qquad$

## Make Picture Graphs

Essential Question How do you make a picture graph to answer a question?

## Listen and Draw

## Lesson 10.2

## Measurement and Data-

 1.MD. 4MATHEMATICAL PRACTICES MP.3, MP. 4

## Use to solve the problem. <br> Draw to show your work.



Mathematical Practices

Describe what the picture graph shows.

Are there more black or white sheep in the picture? Make a picture graph to find out.

| Sheep in the Meadow |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| and black | $\cdots$ |  |  |  |  |
| and | white |  |  |  |  |



Each $\bigcirc$ stands for I sheep.
There are more sheep.

## Share and Show

## MATH BоавD

Do more children like cats or dogs? Ask IO friends which pet they like better.
Draw I circle for each child's answer.

| Our Favorite Pet |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| od cats |  |  |  |  |  |  |  |  |  |  |
| dogs |  |  |  |  |  |  |  |  |  |  |

Each $\bigcirc$ stands for I child.
Use the picture graph to answer each question.
I. How many children chose ${ }^{\text {bof }}$ ?
___ children

ब 2. How many children chose ?
3. Which pet did more children choose? Circle.

$\qquad$

## On Your Own

Which activity do the most children like best?
Ask IO friends. Draw I circle for each child's answer.
Our Favorite Activity

| T reading |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ computer |  |  |  |  |  |  |  |  |  |  |
| st sports |  |  |  |  |  |  |  |  |  |  |

Each $\bigcirc$ stands for I child.

to answer the question.
4. How many children chose T?
5. How many children chose and 8 ?
children $\qquad$ children
6. Which activity did the most children choose? Circle.


THINK SMARIEP
Write your own question about the graph.
$\qquad$
9. FIDEEPER Look at the question you wrote.


Answer your question.

## Problem Solving • Applications Warld <br> WRITE Math

Matt made this picture graph to show the paint colors his friends like best.

Favorite Paint Color

| blue | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| red | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
| green | $\bigcirc$ | $\bigcirc$ |  |  |  |

Each $\bigcirc$ stands for I child.
10. How many children chose a paint color?
and
II. How many fewer children chose than ?
$\qquad$ fewer children

Personal Math Trainer
12. THINKSMARTER + Complete the picture graph to show the number of flowers.

| Flowers in the Vase |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
| $y$ |  |  |  |  |  |
| $y$ |  |  |  |  |  |

Each $\bigcirc$ stands for I Flower.

TAKE HOME ACTIVITY • Ask your child to make a picture graph showing how many glasses of water each family member drinks in a day. Discuss how to find who drinks the most water.

FOR MORE PRACTICE:
Standards Practice Book

## Read Bar Graphs

Essential Question How can you read a bar graph to find the number that a bar shows?

Measurement and Data1.MD. 4

MATHEMATICAL PRACTICES MP.3, MP. 4

## Listen



Write a question about the graph. Use to help solve the problem.

Type of Sneaker We Are Wearing


Each $\bigcirc$ stands for I child.

Emma's class made this picture graph. What question could Emma's class answer using the graph? Write the question and the answer.

Describe how the class made this picture graph.

## Model and Draw

In a bar graph, each bar shows information. You can compare the lengths of the bars.
What title describes this graph?

Touch the end of a bar. Look down to see the number of children.


## Share and Show

## MATH <br> BOARD

Use the bar graph to answer the question.
I. How many children chose - ?
children
2. How many children chose $\ldots$ ?
3. How many more children chose $\ldots$ than $\ldots$ ?
64. Which art tool did the fewest children choose? Circle.
6. Which art tool did the most children choose? Circle.
$\qquad$

## On Your Own

## 

to answer the question.
6. How many children chose ${ }^{\infty}$ ?

7. How many children chose ?
$\qquad$
8. How many children in all chose and ?
children

9. How many more children
chose than
10. Which vehicle did the most children choose? Circle.

II. THINKSMAATIR Order the vehicles from least to most votes. Write I for the least votes and 3 for the most votes.


## Problem Solving • Applications Warld

Use the bar graph to answer the question.

12. Kim puts on a jacket with ©

Add her jacket to the graph.
Now how many jackets have ©
13. FIDOEPPR Ed adds a row to the graph to show jackets with snaps. 2 fewer jackets have snaps than have zippers. How many jackets have snaps?
14. THINK SMARIER How many more jackets have than :\% Circle the number in the box.


## Make Bar Graphs

Essential Question How does a bar graph help you compare information?

Measurement and Data1.MD. 4

MATHEMATICAL PRACTICES
MP.3, MP.4, MP. 8

Use [o to model the problem.
Color I box for each food item to complete the graph.



FOR THE TEACHER • Read the following problem. Dan keeps track of the food he sells at the soccer game. He sells all of the food on the table. Make a bar graph to show the food Dan sells.

How do you know that you counted each food in the picture? Explain.

Are there more or $\%$ in the garden? Make a bar graph to find out. Shade I box for each flower in the picture.



There are more $\qquad$ in the garden.

## Share and Show

Do more children write with their left hand or right hand? Ask IO friends which hand they use. Make a bar graph.

© I. Which hand do more children use to write?
$\qquad$

## On Your Own

## Mathenaical 8 Draw Conclusions

Do children like , or best?
Ask 10 friends which toy they like best.
2. Make a bar graph. Write a title and labels for your graph.

3. Which toy did the most children choose? Circle.

5. THINK SMARTIER How are picture graphs and bar graphs are different from picture graphs.
$\qquad$

## ( $\sqrt{ }$ Mid-Chapter Checkpoint

## Concepts and Skills

Use the picture graph to answer the questions. (1.mD.4)


Each $\bigcirc$ stands for I child.
I. How many children do not wear glasses?
2. How many children wear glasses?

THIN/FSMARITEV Use the bar graph to answer the questions. (1.MD.4)

3. How many children take the bus to school?
4. THINis SMARIER Is the sentence true? Choose Yes or No.

5 children ride in a car or ride a bike.

- Yes
- No

More children go by car than by bus.

- Yes
- No

Fewer children go by bike than by car.

- Yes
- No


## Lesson 10.5

## Read Tally Charts

Essential Question How do you count the tallies on a tally chart?

## Listen and Draw (8aid)

## Use to solve the problem.

Draw to show your work.
 problem. Jane is sorting her crayons. Draw to show how she can sort the crayons into two groups.

## Model and Draw

Do more children like chicken or pizza better?

| Food We Like |  | Total |
| :---: | :--- | :---: |
| chicken | III | 3 |
| pizza | HH III |  |

Each I is a tally mark.
It stands for I child.
HH stands for 5 children.
More children like $\qquad$ .

You can use a tally chart to collect information.


## Share and Show

Complete the tally chart.

| Boys and Girls in Our Class |  |  |  | Total |
| :--- | :--- | :--- | :---: | :---: |
| Q boys | HH IIII |  |  |  |
| O girls | HH I |  |  |  |

Use the tally chart to answer each question.
I. How many girls are in the class?
2. How many boys are in the class? $\qquad$
© 3. How many children are in the class in all?
© 4. Are there more boys or girls in the class? $\qquad$
$\qquad$

## On Your Own

Complete the tally chart.

| Our Favorite Sport |  |  |
| :--- | :--- | :--- |
| t-ball | HH | Total |
| soccer | HH II |  |
|  | swimming | III |

Use the tally chart to answer the question.
5. How many children chose ${ }^{\bullet}$ ?
___ children
6. How many more children chose than $?$ $\qquad$ more children
7. Which sport did the most children choose? Circle.
8. THINKSMARIER Write your own question about the tally chart.
$\qquad$
9. FIDEPPRR Sam asked some other children
which sport they like. They all chose
Now the most children chose How many children did Sam ask? $\qquad$

## Problem Solving • Applications (Regrind) write Math

| Coins in the Bank |  | Total |
| :---: | :--- | :--- |
| (time | III |  |
| (3) penny | HH HH |  |
| nickel | IIII |  |

Remember to write the total.

## 

Complete each sentence about the tally chart.
Write greater than, less than, or equal to.
10. The number of tallies for (3) is $\qquad$ the number of tallies for
II. The number of tallies for (is $\qquad$ the number of tallies for
12. The number of tallies for
 is the number of tallies for (2).
13. FIDDEPER The number of tallies for (3) the number of tallies for both and d
14. THINKSMAATEE How many coins are in the bank?
○ HH

- HA
Ht

FOR MORE PRACTICE:
Standards Practice Book

## Make Tally Charts

Essential Question Why is a tally chart a good way to show information that you have collected?

## Listen Warld

Measurement and Data1.MD. 4

MATHEMATICAL PRACTICES
MP.1, MP.3, MP. 4

Complete the tally chart.

| Our Favorite Game |  | Total |
| :---: | :---: | :---: |
|  | HH |  |
| 路 puzzle | III |  |
| 11 Heard game | HH HH |  |

Use the tally chart to answer the question.
Which game did the most children choose? Circle.


Which game did the fewest children choose?

## Circle.




FOR THE TEACHER • Read the following problem.
Ava asks the children in her class which of three games they like the best. She makes a tally mark to show each child's answer. Which game did the most children choose? Which did the fewest children choose?

How do you know which game is the favorite? Explain.

How can you make a tally chart to show the boats at the lake?

Decide if each boat has a sail.


## Boats at the Lake

boats with sails
boats without sails

## Share and Show

Use the picture to complete the tally chart. Then answer each question.


| Fish in the Tank |  |
| :---: | :---: |
| zebra fish | Total |
| angel fish |  |

I. How many are in the tank?

## © 2. How many more

 than are there?$\qquad$
© 3. How many and are in the tank?
fish
438 four hundred thirty-eight
$\qquad$

## On Your Own

Which of these snacks do most children like the best?
Ask 10 friends. Make I tally mark for each child's answer.

| Our Favorite Snack |  | Total |
| :---: | :---: | :---: |
| pretzel |  |  |
| apple |  |  |
| yogurt |  |  |

Use the tally chart to answer each question.

## 4. How many children

 chose $\mathbb{Q}$ ?5. How many children chose ?
children
6. Which snack do most children like best? Circle.
7. THINK SMARIER What if 6 children out of the 10 chose M? Which snack would be the favorite? Circle it.

8. Explain Write your own question about the tally chart.

## Problem Solving • Applications (real word ) WRITE Math

आung Micia Analyze Relationships Jenna asked
10 friends to choose their favorite subject.
She will ask 10 more children.

| Our Favorite School Subject |  |  |
| :--- | :--- | :--- |
| Total |  |  |
| math | \#\# I |  |
| reading | II |  |
| science | II |  |

9. Predict. Which subject will children most likely choose?
10. Predict. Which subject will children least likely choose?
II. Thmvrsmantel How can you prove if your prediction is good? Try it.
11. THMNV smantie Complete the tally chart to show the number of votes.

| Fruit We Like |  | Total |
| :---: | :--- | :---: |
| apple | IIII | 4 |
| banana |  | 5 |
| grapes |  | 2 |

Name

## Problem Solving • Represent Data

Essential Question How can showing information in a graph help you solve problems?

Brad sees many animals at the park. How can you find how many animals Brad sees?

## I Unlock the Problem

What do I need to find?
how many


Brad sees

What information do I need to use?
the number of

the picture

## Show how to solve the problem.

|  | Animals Brad Sees |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| O | \%' rabbit |  |  |  |  |  |  |  |
| - | * bird |  |  |  |  |  |  |  |
|  | 4) deer |  |  |  |  |  |  |  |
| $\begin{array}{ccccc} 0 & 1 & 2 & 3 & 4 \\ \text { Number of Animals } \end{array}$ |  |  |  |  |  |  |  |  |

$\qquad$

HOME CONNECTION - Your child learned how to represent data from a picture in a bar graph. Have your child explain why it is easier to use data in a bar graph than in a picture.

## Try Another Problem

Make a graph to solve.
I. Jake has 4 more train cars than Ed. Ed has 3 train cars. Ben has 2 fewer train cars than Ed. How many train cars does Jake have?

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

train cars

2. Marla has 8 dolls. Three dolls have blue eyes. The rest have brown. How many dolls have brown eyes?
dolls


Describe how the bar graph helps you solve Exercise 2.
$\qquad$

## Share and Show

##  eye color of your classmates.

3. Write a question you can ask your friends.

ब64. Ask 10 friends your question. Make a tally chart.

|  |  | Total |
| :--- | :--- | :--- | :--- |
|  |  |  |
|  |  |  |

5. THINK SMARIER Use the tally chart to make a bar graph.

6. Explain What did you learn from the graph?

What is your favorite fruit? Nina asked 20 children this question. Then she made a bar graph. But Nina spilled paint on the graph.

7. How many children chose grapes?
8. FIDEEPER How many children chose bananas?
children

Personal Math Trainer
9. THIN/SMAARTE + Write another question that can be answered by using the graph.
$\qquad$

## TVChapter 10 Review/Test

Use the picture graph to answer the questions.

| Color We Like |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 앗 | 옷 | 앗 | 옻 | I |  |  |
| $\ldots$ blue | 앛 | 옷 | 앗 | 앛 | i | 8 |  |

Each $\mathcal{F}^{\wedge}$ stands for I child.
I. How many children chose 0 nex $1>$ ?
$\square$
2. Is the sentence true? Choose Yes or No.
More children like blue than red.
o Yes
○ No
5 children like red.
○ Yes
○ No
2 more children like blue than red.
o Yes
○ No
3. I more child gets a mues. Draw what the blue row looks like now.
blue 옻 옻 옻 옻

Use the bar graph to answer the questions.

4. How many days had ?
$\square$
5. Compare and days. Circle the number that makes the sentence true.

6. Ann says the graph shows I more rainy day than cloudy days. Is she correct?

Choose Yes or No.
o Yes

- No

Explain your answer.
$\square$
$\qquad$
Use the tally chart to answer the questions.

7. How many does Sam have?
$\square$
8. Draw tally marks for the number of cars that the chart shows.
$\square$
9. Circle the words that make the sentence true.

10. Chung visits the zoo. He sees 3 . He sees 3 more fin than 2 fewer 2 K than $\mathrm{H}_{6}$. Graph the data.


Use Chung's graph to answer the questions.
II. How many (6) does Chung see?
$\qquad$
12. Write another question that can be answered by Chung's graph.

## Critical Area Geometry




The train car waits for the engine.
Name some shapes you see.


The ship loads at the dock.
Name some shapes you see.

452
What will this ship bring?

$\qquad$

## Write About the Story

Think of another kind of truck that takes goods from one place to another. Draw a picture. Use circles, squares, triangles, or rectangles in your drawing.

## Vocabulary Review

 circle triangle square rectangletruck

WRITE Math Write about your drawing.
$\qquad$
$\qquad$
$\qquad$
----------------------------------
$\qquad$
$\qquad$
-----------------------------------------1

## Figure It Out

I. Draw an airplane. Use some triangles and circles in your drawing.

2. Draw a train. Use some rectangles and circles in your drawing.

## Chapter <br> Three-Dimensional Geometry


$\qquad$

## Show What You Know

## Alike and Different

Circle the objects that are alike.
I.

2.


## Identify Three-Dimensional Shapes

Color the blue. Color the $\square$ red.
Color the yellow.
3.

4.

5.


## Sort by Size

Mark an $X$ on the object that does not belong.
6.


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

458 four hundred fifty-eight
$\qquad$

## Vocabulary Builder

## Visualize It

cone cube cylinder
sphere

Write review words to name the shapes.


## Understand Vocabulary

Look at the three-dimensional shapes.
Color the sphere $\leadsto$. Color the cube 0 .
Color the cylinder
I.

2.

3.

civere II Game Shape Match

Materials•१○・の○•*
Play with a partner. Take turns.
(1) One player uses $\square$ . The other player uses

(2) Spin (8). Use a counter to cover a space with that shape.
(3) If you cannot cover a space, your turn is over.
(4) The first player to cover all of his or her spaces wins.


## Three-Dimensional Shapes

Essential Question How can you identify and describe three-dimensional shapes?

Geometry-1.G. 1
MATHEMATICAL PRACTICES MP.4, MP. 8

## Listen and Draw

Draw to sort the three-dimensional shapes.
 how they sorted.

## Model and Draw

These are three-dimensional shapes.
Why is a cube a special kind of


Share and Show

## Use three-dimensional shapes.

Sort the shapes into three groups.
Name and draw the shapes.
I. only flat surfaces
© 3. both flat and curved surfaces
$\qquad$

## On Your Own

##  <br> Write the number of flat surfaces for each shape.

4. A rectangular prism has flat surfaces.
5. A cube has $\qquad$ flat surfaces.

## 6. A cylinder has

$\qquad$ flat surfaces.
7. A cone has $\qquad$ flat surface.

FIDEEPERR Write to name each shape.
Exercises 4-7 can help you write the shape names.
8.

10.

$\qquad$
---------
II.

12.

$\qquad$
------------
$\qquad$

## Problem Solving • Applications

## WRITE Math

Circle the objects that match the clues.
13. Kelly drew objects that have both flat and curved surfaces.

14. THINV, SMAREIES Sandy drew some rectangular prisms.


Personal Math Trainer
15. THINVSMARITR Match each shape to the group where it belongs.

-


> Both flat and curved surfaces

Only flat surfaces


-

TAKE HOME ACTIVITY • Ask your child to name real objects shaped like a sphere, a rectangular prism, and a cylinder.

Name

Combine Three-Dimensional Shapes
Essential Question How can you combine three-dimensional shapes to make new shapes?

## Listen and Draw (woind

Trace to draw the new shape.
Write to name the new shape.
Trace to draw the new shape.
Write to name the new shape.
Mandy

HANDS ON Lesson 11.2

MATHEMATICAL PRACTICES MP.1, MP.2, MP. 3


You can put shapes together to make a new shape.

What other new shapes could you make?


Share and Show

## MATH BOARD

Use three-dimensional shapes.
Combine.
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466 four hundred sixty-six
$\qquad$

## On Your Own

##  <br> Use three-dimensional shapes.



## Problem Solving • Applications World

[ [ $M D E B P E R$ Circle the shapes you could use to model the ice cream cone.
१.

10. THINKs SMARIET Circle the ways that make the same shape.

II. THINKSMARIR Combine
 and $\Delta$
Choose all the new shapes you can make.
○

0

$\bigcirc$

O


TAKE HOME ACTIVITY • Ask your child to show you two different new shapes he or she can make by combining a soup can and a cereal box.

# Make New Three-Dimensional Shapes 

Essential Question How can you use a combined shape to build new shapes?

Geometry-1.G. 2
MATHEMATICAL PRACTICES MP.1, MP.2, MP. 3

## Listen cinc ircw

Draw to copy the shape.


Circle a new shape you can make. Explain why you cannot make the other shape.


Share and Show
Use three-dimensional shapes.


470 four hundred seventy
$\qquad$

## On Your Own


Use three-dimensional shapes.

| Build and Repeat. | Combine. Which new shape <br> can you make? Circle it. |
| :--- | ---: |
| 4. |  |
| 5. |  |

7. THINKSMARTER Look at the shape.
How many $\boxminus$ are used to make the shape?
 make the shape.

How many $\boxtimes$ are used to make the shape?
$\square$ make the shape.

TAKE HOME ACTIVITY • Ask your child to
explain how he or she solved Exercise 4.
$\qquad$

## (V) Mid-Chapter Checkpoint

## Concepts and Skills

I. Circle the rectangular prisms.
2. Draw a line under the shapes that have both flat and curved surfaces. (1.6.1)


Use three-dimensional shapes. ${ }^{(1.6 .2)}$

| Combine. |  |
| :--- | :---: |
| 3. | Which new shape can you make? <br> Circle it. |

4. THIN/isMARTER Which new shape can you make?

$\bigcirc$

$\bigcirc$

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472 four hundred seventy-two

Name

## Problem Solving• Take Apart Three-Dimensional Shapes

Essential Question How can acting it out help you take apart combined shapes?


Geometry-1.G. 2
MATHEMATICAL PRACTICES
MP.6, MP.7, MP. 8


## Unlock the Problem

## What do I need to find?

 chose to build the bridge

## What information do I need to use?

Mike has these shapes.

Mike has , and . He chose some shapes to build a bridge. Which shapes did Mike use to build the bridge?

## Try Another Problem

Kim used shapes to build this castle.

Use three-dimensional shapes. Circle your answer.


- What do I need to find?
- What information do I need to use?
I. Which shapes did Kim use to build the tower?


2. Which shapes did Kim use to build this wall?

3. Which shapes did Kim use to build the gate?


Describe how you know which shapes Kim used to build the tower.
$\qquad$

## Share and Show

## marinaicai () Analyze Use three-dimensional shapes.

Circle your answer.
©5. Zack used shapes to build this gate. Which shapes did Zack use?

©6. Chris used shapes to build this wall. Which shapes did Chris use?

to build a tower. Draw to show a tower Rosa could build.

## GIDEEPER <br> Circle the ways that show the same shape.

8. 


9. THINK SMARTER

10. THINVSMAETEV Sharon has many different blocks. She built this shape with her blocks.


Choose all the shapes Sharon used.
0



○

$\qquad$

## Two-Dimensional Shapes on Three-Dimensional Shapes

Essential Question What two-dimensional shapes do you see on the flat surfaces of three-dimensional shapes?

## Listen and Draw wird

## Use a cone.

MATHEMATICAL PRACTICES
MP.1, MP.4, MP. 6



## Model and Draw

Trace around the flat surfaces of the three-dimensional shape to find the two-dimensional shapes.


## Share and Show

Use three-dimensional shapes. Trace around the flat surfaces. Circle the shapes you draw.


© 2.

© 3.

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478 four hundred seventy-eight
$\qquad$

## On Your Own

## (ung ixice ic Make Connections Circle the objects you

 could trace to draw the shape.4. 


5.

6.

8. THINISMARIEV Draw a shape you would make if you traced this object.


## Problem Solving • Applications eraild

Circle the shape that the pattern will make if you fold it and tape it together.


Personal Math Trainer
II. THINISMARIER + Kei wants to trace a $\square$ She finds these objects.
Which object should she use?


jar

box

What would happen if Kei used the to trace a shape?
$\qquad$

## (V) Chapter 11 Review/Test

I. Match each shape to the group where it belongs.


Only flat surfaces

## Only a curved surface

2. Combine $\square$ and $\square$. Choose all the new shapes you can make.
O

O



3. Build and repeat. Choose Yes or No.
can two A make H?

- Yes
○ No
Can two $\square$ make $\prod_{\square}$ ?
o Yes
- No
- Yes
- No

4. Damon built this shape.


Choose all the shapes Damon used.
$\bigcirc$

$\bigcirc$

$\bigcirc$


5. Circle the number that makes the sentence true.

$\qquad$
6. Sara wants to trace a $\bigcirc$. She finds these objects.


Which object should she use?


What would happen if she used the $\square$ to trace a shape?
$\square$
7. Which shape has only 2 flat surfaces?
○

○

$\bigcirc$

○

8. Look at the shape.


How many

$\square$
9. Ellen built this shape.


Which objects did Ellen use?
Circle them.



Draw another way to combine the objects.
$\square$
10. Hector built this shape.


Choose all the shapes Hector used.
$\circ$

$\circ$

$\circ$


$\bigcirc$


484 four hundred eighty-four

## Chapter 12 <br> Two-Dimensional Geometry


$\qquad$

## Show What You Know

## Sort by Shape

Circle the shape that belongs in each group.
I.

2.


## Sort Shapes

Circle the shapes with 4 sides.
3.


## Identify Two-Dimensional Shapes

Color each square blue. Color each rectangle yellow.
Color each circle red.
4.


This page checks understanding of important skills needed
$\qquad$

## Vocabulary Builder

## Visualize It

Complete the chart.
Mark each row with a $\sqrt{ }$.

## Review Words

circle hexagon rectangle square triangle

| Word | I Know | Sounds <br> Familiar | I Do Not <br> Know |
| :---: | :---: | :---: | :---: |
| circle |  |  |  |
| hexagon |  |  |  |
| rectangle |  |  |  |
| square |  |  |  |
| triangle |  |  |  |

## Understand Vocabulary

Write the number of each shape.
I. $\qquad$
2. $\qquad$
3. ___ triangles


## Chapter 12

## Rocke\} Shapes

Materials

- •8 • 6

Play with a partner.
Take turns.
(1) Spin the 0 .
(2) Name the shape you spin.
(3) Place that shape on the rocket if you can.
4. If you cannot place the shape, your turn is over.
(5) The first player to cover a whole rocket wins.


Player 1


[^0]
## Sort Two-Dimensional Shapes

Essential Question How can you use attributes to classify and sort two-dimensional shapes?

Geometry-1.G. 1
MATHEMATICAL PRACTICES MP.6, MP.7, MP. 8

## Listen and Draw <br> 

Draw to sort the shapes.
Write the sorting rule.


## Model and Draw

Here are some ways to sort two-dimensional shapes.

A square is a special kind of rectangle.

circles
closed shapes with $\qquad$ sides

triangles
closed shapes with $\qquad$ vertices
$\square$

rectangles

## Share and Show

Read the sorting rule. Circle the shapes that follow the rule.

## THINK

Vertices (corners) are where the sides meet.
2. not curved

I. 4 vertices (corners)

$\square$

83. only 3 sides

$\qquad$

## On Your Own

## REMEMBER

Read the sorting rule first.

## 

Circle the shapes that follow the rule.
5. curved

7. 4 sides

6. only 3 vertices (corners)

8. 4 sides are the same length


THINKSMARTER Draw 2 different two-dimensional shapes that follow both parts of the sorting rule.

9. 3 sides and 3 vertices (corners)
10. 2 sides are long and 2 sides are short

## Problem Solving • Applications (reald (worl (wath Math

## Ted sorted these shapes three different ways. Write sorting rules to tell how Ted sorted. <br> 

II.


$\qquad$
12.

$\square$
13. THINKSMARTIER

14. THINKS SMAREIE Which shapes have more than 3 sides? Choose all that apply.
$\bigcirc$

$\bigcirc$

$\bigcirc$


$\bigcirc$

$\qquad$
Describe Two-Dimensional Shapes
Essential Question What attributes can you use to describe two-dimensional shapes?

## Listen and Draw

Geometry-1.G. 1

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

## Use two-dimensional shapes. Sort them into two groups. Draw to show your work.



## Model and Draw

Some shapes have straight sides and vertices (corners).


## Share and Show

## MATH <br> BOARD

Use two-dimensional shapes. Draw and write to complete the chart.

| Shape | Draw the <br> shape. | Number of <br> Straight Sides | Number <br> of Vertices <br> (Corners) |
| :---: | :---: | :---: | :---: |
| 1. | hexagon | $\vdots$ |  |
| 2. | rectangle |  |  |
| © 4. | square |  |  |
| trapezoid |  |  |  |
|  | © 5. | triangle |  |
|  |  |  |  |

494 four hundred ninety-four
$\qquad$

## On Your Own

Use $\rightleftharpoons$ to trace each straight side.
Use to circle each vertex (corner).
Write the number of sides and vertices (corners).
6.

| sides | 7. |
| :---: | :---: |
| vertices |  |

sides
8.

9.

sides
vertices
10.

II.


THINKSMARTEE Draw a picture to solve.
12. I am a shape with 3 straight sides and 3 vertices.
13. I am a shape with 4 straight sides that are the same length and 4 vertices.


## Problem Solving • Applications

WRITE Math

## Maphinglit ( ) Use Math Vocabulary

Draw shapes to match the clues.
14. Jake draws a shape that has fewer than 5 sides. It has 3 vertices.
15. Meg draws a shape with 4 sides. She labels it as a trapezoid.
16. [GDDEPPER Ben draws two different shapes. They each have only 4 vertices.
17. THINK SMARTE Circle the number that makes the sentence true.


TAKE HOME ACTIVITY • Have your child draw a square, a trapezoid, and a triangle. For each shape, have him or her show you the sides and vertices and tell how many of each.

FOR MORE PRACTICE: Standards Practice Book
$\qquad$

## Combine Two-Dimensional Shapes

Essential Question How can you put two-dimensional shapes together to make new two-dimensional shapes?

## Listen and Draw

Use pattern blocks. Draw to show your work.


## Model and Draw

How many do you need to make a?


## Share and Show

Use pattern blocks. Draw to show the blocks.
Write how many blocks you used.
I. How many make a ?
$\qquad$

## On Your Own

Manigilci 5 ( Use a Concrete Model Use pattern blocks. Draw to show the blocks.
Write how many blocks you used.

$$
\text { 3. How many } \Delta \text { make a ? }
$$

4. How many make a

$\qquad$ make a

## _ $\quad$ makea .

5. THINKSMARIER Use me two times to make this shape. Which block am I? Circle a block to show your answer.

6. FIDEFPER Use these pattern blocks to make the shape. Write how many times you used each block.


## Problem Solving • Applications World

WRITE Math

## [FIDEEPR Use pattern blocks.

## Draw to show your answer.

## 7. 2 <br>  make a

## How many make 3 ?



Personal Math Trainer
8. THINKSMARIER $\dagger$

How many make a ?

Use pattern blocks. Draw to show the blocks you used.

## Lesson 12.4

Name $\qquad$

## Combine More Shapes

Essential Question How can you combine two-dimensional shapes to make new shapes?

Geometry-1.G. 2
MATHEMATICAL PRACTICES
MP.1, MP. 4

## Listen and Draw

## Use shapes to fill each outline.

Draw to show your work.


## Model and Draw

Combine shapes to make a new shape.


How else could you combine $2 \square$ ?

## Share and Show

Circle two shapes that can combine to make the shape on the left.
I.

© 2.

3.


$\qquad$

## On Your Own

## 

 shapes that can combine to make the shape on the left.4. 



## THINK SMARTIR Draw lines to show two different

 ways to combine the shapes on the left to make new shapes on the right.
6.



## Problem Solving • Applications (earld

WRITE Math
THINK SMARITE Draw lines to show how the shapes on the left combine to make the new shape.
8.

9.

10.

II. THINV SMARTEP Circle the two shapes that can combine to make this new shape.


# Problem Solving • Make New 

Two-Dimensional Shapes
Essential Question How can acting it out help you make new shapes from combined shapes?
mathematical practices MP.1, MP. 4

Cora wants to combine shapes to make a circle. She has $\square$.
How can Cora make a circle?

## Unlock the Problem

What do I need to find?
how Cora can make a


What information do I need to use?

Cora uses this shape.


## Show how to solve the problem.

Step I Use shapes. Combine to make a new shape.


Step 2 Then use the new shape.


HOME CONNECTION • Recognizing how shapes can be put together and taken apart provides a foundation for future work with fractions.

## Try Another Problem

Use shapes to solve.
Draw to show your work.

## I. Use $\square$ to make a larger $\square$.

Step I Combine shapes to make a new shape.

- What do I need to find?
- What information do I need to use?
make a new shape.


Step 2 Then use the new shape. and

2. Use $\triangle$ to make a $\square$.

Step l Combine shapes to make a new shape.


Step 2 Then use the new shape.

$\qquad$

## Share and Show

## Marinicici () Analyze Relationships Use

 shapes to solve. Draw to show your work.Step I Combine shapes to make a new shape.


Step 2 Then use the new shape.
and

4. THINKSMARTER Use $\triangle$ and $\triangle$ to make a $\square$.

Step I Combine shapes to make a new shape.


Step 2 Then use the new shape.

$\qquad$

## (V)Mid-Chapter Checkpoint

## Concepts and Skills

Write the number of sides and vertices (corners). (1.G.1)
I.

vertices
2.

$\qquad$
sides
___ vertices
Circle the shapes that can combine to make the new shape. (1.6.2)
3.

4. THINKSMAETIE Which new shape can you make? (1.6.2)

$\bigcirc$

$\qquad$

## Find Shapes in Shapes

## Listen and Draw

## Use pattern blocks. What shape can

 you make with I and 2

## Model and Draw

Which two pattern blocks make this shape?


Share and Show

Man
BOARD

Use two pattern blocks to make the shape.
Draw a line to show your model.
Circle the blocks you use.

ब 1.

$\qquad$

## On Your Own

## Maringaical 5 Use a Concrete Model

Use two pattern blocks to make the shape.
Draw a line to show your model.
Circle the blocks you use.

7. THIN/KSMARIER Use three pattern blocks to make the shape. Draw lines to show your model. Circle the blocks you use.


## Problem Solving • Applications

## WRITE Math

## THINVSSMARIEP Make this shape.

Use the number of pattern blocks listed in the exercise. Write how many of each block you use.

8. Use 3 blocks.


IO. Use 7 blocks.
$\qquad$ $\longrightarrow$


THIN/KMAARIE) Use 4 pattern blocks to fill the shape. Draw to show the blocks you used.


## Take Apart Two-Dimensional Shapes

Essential Question How can you take apart two dimensional shapes?

## Listen and Draw

Color rectangles orange.
Color triangles purple.
 shapes together.

## Model and Draw

You can draw to show parts of a shape.


## Share and Show

MATH BOARD

Draw a line to show the parts.
I. Show $2 \square$.

2. Show $2 \triangle$.

© 4. Show $2 \triangle$.


514 five hundred fourteen
$\qquad$

## On Your Own

## Mur hitici 0 Identify Relationships

Draw a line to show the parts.
5. Show $2 \triangle$.

7. Show I $\square$ and I $\square$.
6. Show $2 \square$.



THINK SMARTER Draw two lines to show the parts.

9. Show $3 \triangle$.

10. Show $2 \triangle$ and $\square$.


## Problem Solving • Applications

II. THINVISMARTEP How many squares are there?

12. THINK SMARITE Draw a line to show the parts. Show $2 \square$

## Equal or Unequal Parts

Essential Question How can you identify equal and unequal parts in two-dimensional shapes?

## Geometry-1.G. 3

MATHEMATICAL PRACTICES
MP.1, MP.3, MP. 6

## Listen and Draw

Draw to show the parts.


## Model and Draw

These show equal parts, or equal shares.

These show unequal parts, or unequal shares.


## Share and Show

## MATH BOARD

Circle the shape that shows equal parts.


> How can you describe equal shares?
I.

2.

© 3.


THINK Are the parts the same size?

Circle the shape that shows unequal parts.
4.

5.

© 6.

$\qquad$

## On Your Own

## THINK

Equal shares means the same as equal parts.

## Märimaical (6) Use Math Vocabulary

Color the shapes that show unequal shares.
7.

8.


Color the shapes that show equal shares.
9.

10.


THINKSMAATIER Write the number of equal shares.
II.

___ equal shares
12.

equal shares

## Problem Solving • Applications

WRITE Math
THIN/FSMARTER Draw lines to show the parts.
13. 2 equal parts
14. 2 unequal parts

15. 4 equal shares

16. 4 unequal shares

17. THINVSMARTE Does the shape show equal shares? Choose Yes or No.

o Yes

○ No
o Yes
○ No
o Yes

- No

TAKE HOME ACTIVITY• Draw a circle on a piece of paper.
Ask your child to draw a line so the circle shows 2 equal shares.

## Halves

Essential Question How can a shape be separated into two equal shares?

Geometry-1.G. 3
mathematical practices
MP.1, MP.4, MP. 6

## Listen and Draw freald

## Draw to solve.

## Model and Draw

The 2 equal shares make I whole. 2 equal shares


I whole


2 halves

Is half of the circle larger or smaller than the whole circle?

## Share and Show

 BOARDDraw a line to show halves.
I.

© 2.

3.

(6) 4.

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522
$\qquad$

## On Your Own

## 

THINK
Halves are equal shares.

Circle the shapes that show halves.
5.

6.

7.

8.

II.

12.
14. THINV SMARTER Use the picture.

Write numbers to solve.

10.

13.


The picture shows $\qquad$ halves. The $\qquad$ equal shares make $\qquad$ whole.

## Problem Solving • Applications <br> WRITE Math

Draw or write to solve.
15. Color half of each shape.

16. Linus cut a circle into equal shares. He traced one of the parts. Write half of or halves to name the part.

17. (EIDEEPR Draw three different ways to show halves.

18. THINKSMARIEP Circle the shapes that show halves.


## Fourths

Essential Question How can a shape be separated into four equal shares?

## Geometry-1.G. 3

MATHEMATICAL PRACTICES
MP.1, MP.4, MP. 6


Use what you know about halves. Draw to solve. Write how many.

There are $\qquad$ equal shares.

## Model and Draw

The 4 equal shares make I whole.

## 4 equal shares



I whole


## How can you describe one of the <br> 4 equal shares?

4 fourths, or
4 quarters

## Share and Show

MATH
BOARD BOARD

Color a fourth of the shape.
I.

2.

© 3.


Color a quarter of the shape.

5.




526 five hundred $\ddagger$ wenty-six
$\qquad$

## On Your Own

## (unikitici (4) Use Diagrams Circle the shapes that show fourths.

7. 
8. $5[D E E P R E$ Draw three different ways to show fourths.


## Problem Solving • Applications <br> WRITE Math

Solve.
17. Write halves, fourths, or quarters to name the equal shares.

18. THINKSMARIEX Circle the shape that shows quarters.


Personal Math Trainer
19. THIN/KSMARTE + Alano has a small pizza. He wants to share the pizza with friends. He cuts the pizza into fourths.
Draw lines to show how he cuts the pizza.
How many equal shares did you draw? $\qquad$


How many halves can you show in a circle? $\qquad$
Tell how you can solve this problem in a different way.
$\square$
$\qquad$

## (V)Chapter 12 Review/Test

I. Which shapes have only 3 sides?

Choose all that apply.

$\bigcirc$

$\bigcirc$

o

$\bigcirc$

2. Circle the number that makes the sentence true.

3. How many $\square$ make $a$ ?

Use pattern blocks. Draw to show the blocks you used.
$\square$
4. Circle two shapes that can combine to make this new shape.

5. Use $\square$ to make a $\bigcirc$. Use pattern blocks.

Draw to show your work.
Step I Combine shapes.
$\square$ and $\square$ make $\square$
Step 2 Use the new shape.
$\checkmark$ and $\checkmark$ make


How many $\square$ do you need to make $\mathrm{a} \bigcirc$ ?


Can you make a $\triangle$ with $3 \square$ ? Choose Yes or No.

- Yes
○
No
$\qquad$

6. Use 4 pattern blocks to fill the shape. Draw to show the blocks you used.

7. Draw a line to show the parts. Show 2 $\square$

8. Does the shape show equal shares? Choose Yes or No.

○ Yes
○ No

o Yes
○ No
o Yes

- No

9. Circle the shapes that show halves.

10. Draw lines to show fourths.


How many equal shares did you draw?
$\square$
How many halves can you show in a rectangle?
$\square$
Tell how you can solve this problem in a different way.
$\square$
add sumar


$$
3+2=5
$$

addend sumando

$$
\begin{aligned}
& 1+3=4 \\
& \text { addend }
\end{aligned}
$$

addition sentence enunciado de suma
$2+1=3$ is an addition sentence.
bar graph gráfica de barras

circle círculo


## compare comparar

Subtract to compare groups.


$$
5-1=4
$$

There are more
cone cono

count back contar hacia atrás

$8-\mid=7$
Start at 8.
Count back I.
You are on 7.
count on contar hacia adelante
$4+2=6$
Say 4.
Count on 2.
5, 6
cube cubo

curved surface superficie curva

Some three-dimensional shapes have a curved surface.

cylinder cilindro

difference diferencia

$$
4-3=1
$$

The difference is I .

## digit dígito

13 is a two-digit number.
The I in I3 means I ten.
The 3 in 13 means 3 ones.
doubles dobles

$$
5+5=10
$$

doubles minus one dobles menos uno

$5+5=10$, so $5+4=9$
doubles plus one dobles más uno


$$
5+5=10, \text { so } 5+6=11
$$

equal parts partes iguales These show equal parts, or equal shares.

equal shares porciones iguales
These show equal parts, or equal shares.


## fewer menos



3 fewer
flat surface superficie plana

Some three-dimensional shapes have only flat surfaces.

fourth of cuarto de

A fourth of this shape is shaded.

fourths cuartos


I whole


4 fourths, or 4 quarters
half hour media hora


A half hour has 30 minutes.
half of mitad de
Half of this shape is shaded.

halves mitades

hexagon hexágono

hour hora


An hour has 60 minutes.
hour hand horario

hundred centena EFEFEFEFEFEF

IO tens is the same as I hundred.
is equal to (=) es igual a

2 plus I is equal to 3 .

$$
2+1=3
$$

is greater than es mayor que 35 is greater than 27.


$$
35>27
$$

is less than es menor que

$$
\begin{aligned}
& 43 \text { is less than } 49 \text {. } \\
& 4 F E F E F E+49
\end{aligned}
$$

longest el más largo

make a ten formar una decena Move 2 counters into the ten frame. Make a ten.

minus ( - ) menos

4 minus 3 is equal to 1 .
$4-3=1$
minute hand minutero

minutes minutos


An hour has 60 minutes.

## more más


ones unidades

order orden

You can change the order of the addends.

$1+3=4$
$3+1=4$
picture graph gráfica con dibujos

| Our Favorite Activity at the Fair |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| "枨 animals | $\stackrel{\circ}{1}$ | 앛 | 앛 | 앛 | 앛 |  |  |
| 筤 rides | 앛 | 앛 | 앛 | 앛 | 앛 | 앛 | 앛 |

Each $\stackrel{\circ}{X}$ stands for $I$ child.
plus (+) más

2 plus I is equal to 3 .

$$
2+1=3
$$

quarter of cuarta parte de
A quarter of this shape is shaded.

quarters cuartas partes


I whole


4 fourths, or 4 quarters
rectangle rectángulo


A square is a special kind of rectangle.
rectangular prism prisma rectangular


A cube is a special kind of rectangular prism.
related facts operaciones relacionadas

shortest el más corto

side lado

sphere esfera

square cuadrado

subtract restar

Subtract to find out how many.

subtraction sentence enunciado de resta
$4-3=1$ is a subtraction sentence.
sum suma o total

2 plus I is equal to 3 .
The sum is 3 .
tally chart tabla de conteo

| Boys and Girls in Our Class |  |  | Total |
| :---: | :--- | :---: | :---: |
| P | boys | HH IIII | 9 |
| P | girls | HH I | 6 |

tally mark marca de conteo

## HH

Each tally mark | stands for I. HH stands for 5.
ten decena


10 ones $=1$ ten
trapezoid trapecio

triangle triángulo

unequal parts partes
desiguales
These show unequal parts, or unequal shares.

unequal shares porciones desiguales

These show unequal parts, or unequal shares.

vertex vértice

zero 0 cero
When you add zero to any number, the sum is that number.

$5+\mathbf{0}=5$


[^0]:    488 four hundred eighty-eight

