

Name _____

Place Value

Counting Counters

You need

- zip-top bag of counters

Look at the counters in your group's bag.

STEP 1 Estimating

How many counters do you think are in your bag? _____



How did you decide? _____

STEP 2 Counting

What is the exact number of counters in your bag? _____

How did you find the exact number? _____

STEP 3 Counting Another Way

What is another way to find the exact number? _____

Which way do you like better? Explain.





School-Home Connection

Dear Family,

Today we started Chapter 3 in *Think Math!* In this chapter, I will estimate, count, read and write numbers, and draw symbols for numbers to 999. There are NOTES on the Lesson Activity Book pages to explain what I am learning every day.

Here are some activities for us to do together at home. These activities will help me understand place value.

Love,

Family Fun

Place-Value Match

Work with your child to prepare game cards to play *Place-Value Match*.

- Use index cards or slips of paper to make a set of 32 game cards. On 16 cards, write a three-digit number. On the remaining cards, write the number of hundreds, tens, and ones in each three-digit number.
- Partners shuffle the cards, and each one takes 6 cards. They put the remaining cards in a facedown stack.
- Players take turns asking each other for cards to make a match. For example:

**Do you have a card for 4 hundreds,
7 tens, 3 ones?**

If the partner does not have the matching card, the player chooses a card from the stack. If the partner has the card, a match is made, and the player puts the pair of cards aside.

- The first player to match all of his or her cards wins the game.



Guess How Many?

Work with your child to estimate and count objects.

- Gather a container of small identical objects such as pennies, paper clips, or marbles. Ask your child to take a handful of the objects and count them.
- Without counting, each player guesses the number of objects in the container and writes the guess on a sheet of paper.
- Players then work together to group the objects into sets of ten to count the total number of objects. The objects are returned to the container.
- The player with the guess closer to the actual number is the winner.

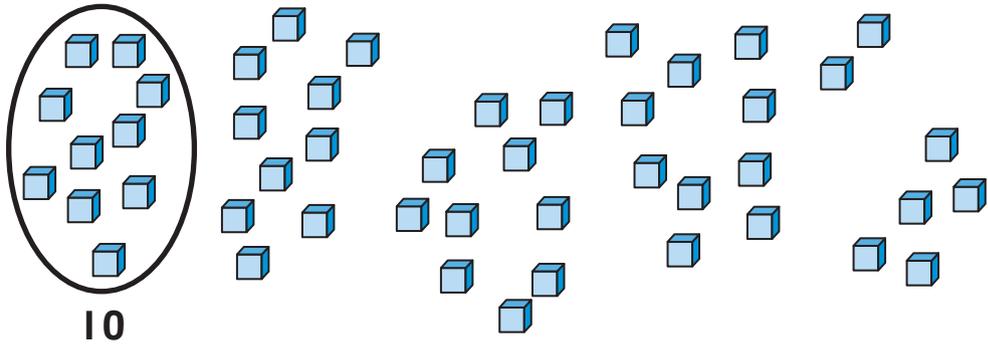


Estimating and Counting Larger Numbers

NCTM Standards 1, 6, 7, 8, 9, 10

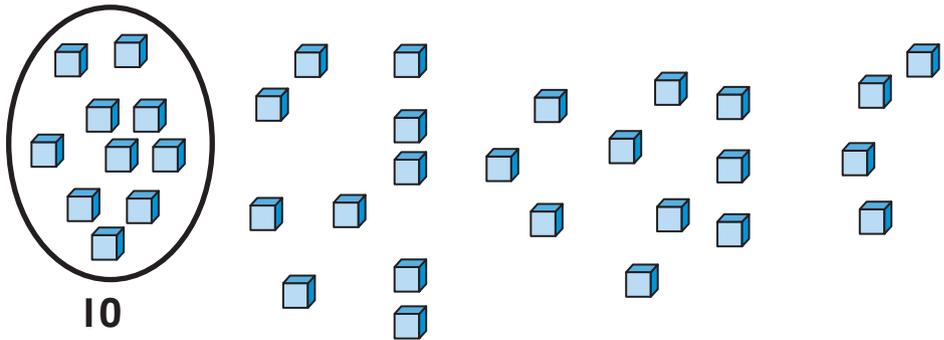
How many are there? Use the set of 10 to estimate. Then count to find the total.

1.



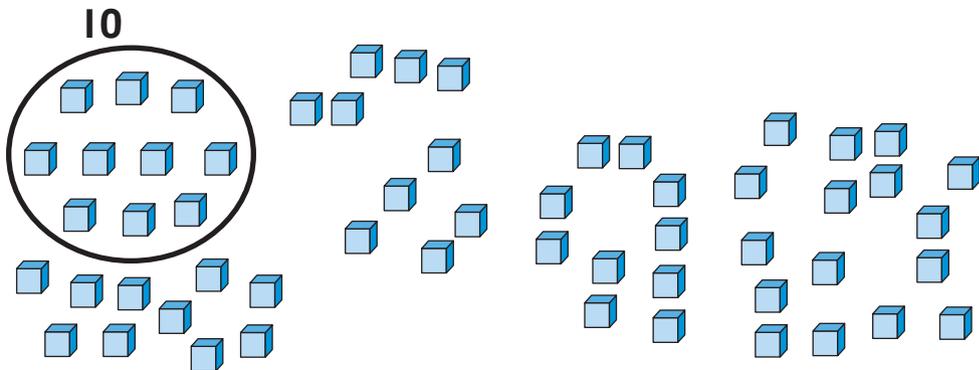
<u>45</u>	<u>47</u>
Estimate	Count

2.



<u> </u>	<u> </u>
Estimate	Count

3.



<u> </u>	<u> </u>
Estimate	Count



NOTE: Your child is learning to estimate by using 10 as a benchmark and is making smaller sets to count a large collection of objects.

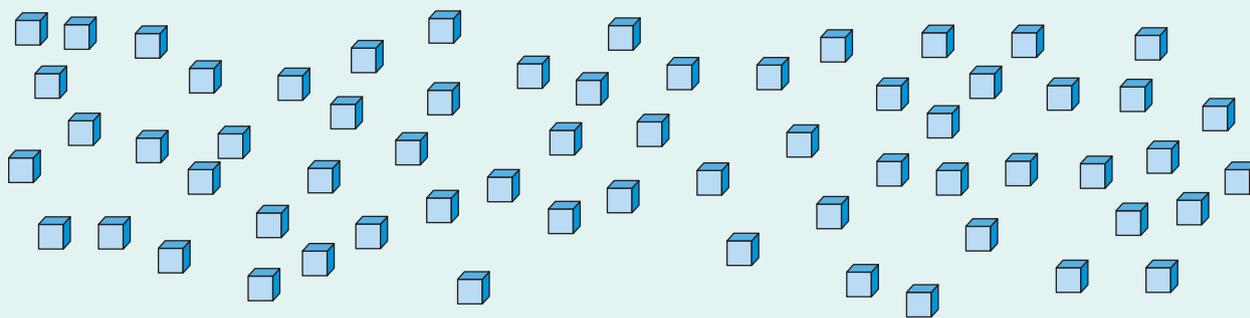
4. Draw as many squares as you can in the frame.
Ask a classmate to estimate the total and make
sets to count.



Estimate _____ Count _____

Challenge

5. How many are there? Estimate.
Count some and revise your estimate.
Count it all to find the total.



Estimate _____

Revised Estimate _____

Total _____

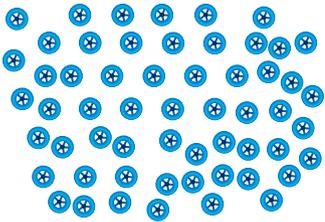
Grouping by Tens and Hundreds

NCTM Standards 1, 6, 7, 8, 9, 10

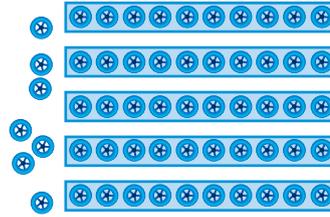
Both pictures show the same number.
How many wheels do they show?

It is easier to count the wheels in sets of 10.

1.

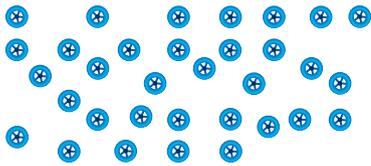


ones

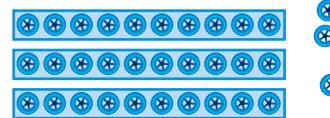


5 7 → 57
tens ones

2.

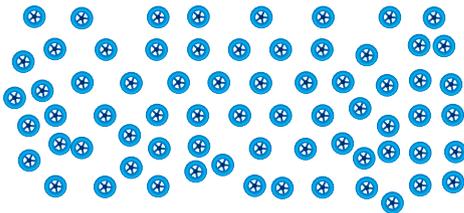


ones

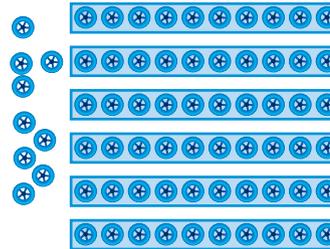


 →
tens ones

3.

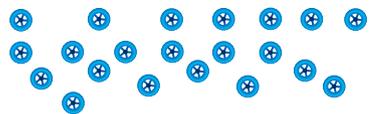


ones

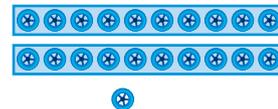


 →
tens ones

4.



ones

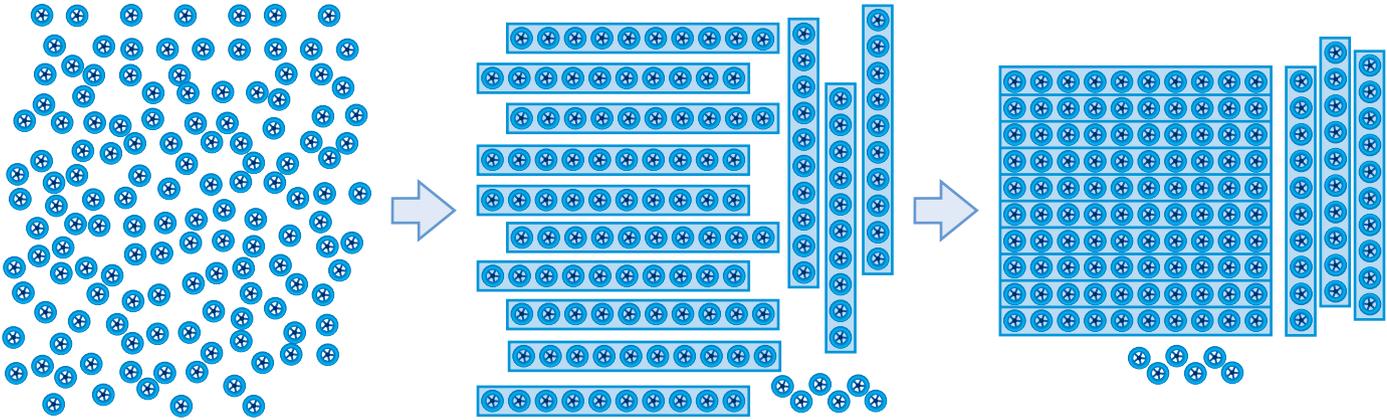


 →
tens ones



NOTE: Your child is learning that it is sometimes easier to group objects by tens and hundreds when counting a large collection of objects.

5. All three pictures show the same number.
How many wheels do they show?



ones



_____ tens _____ ones



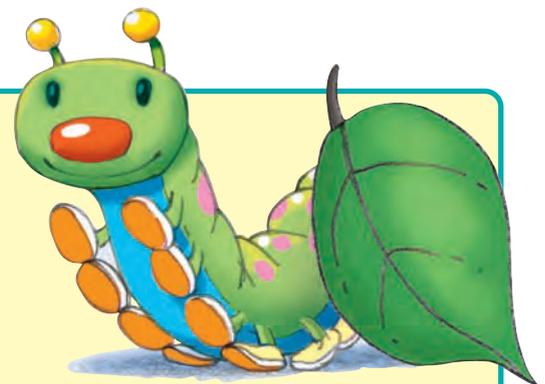
_____ hundred _____ tens _____ ones



-  6. Circle the set in Problem 5 that is easiest to count.
Explain why you think this is so.

Problem Solving

7. A millipede is a small animal with many legs. This millipede has 115 pairs of legs. How many legs does the millipede have? (Hint: A pair is two.)

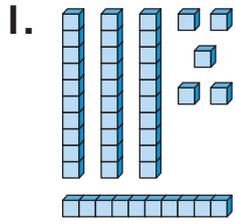


_____ hundreds _____ tens _____ ones = _____ legs

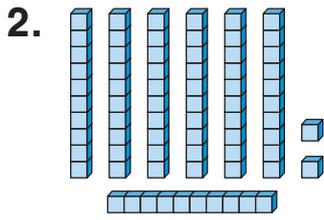
Representing Two-Digit Numbers

NCTM Standards 1, 6, 8, 9, 10

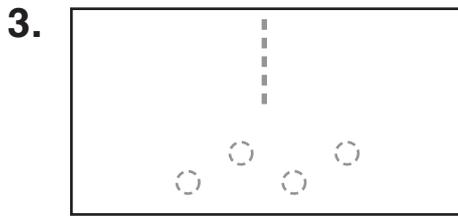
What is missing? Draw symbols and write numbers.



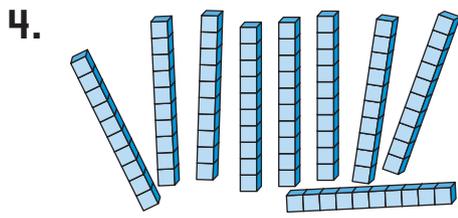
$$\underline{4} \text{ tens } \underline{5} \text{ ones} = \underline{40} + \underline{5} = \underline{45}$$



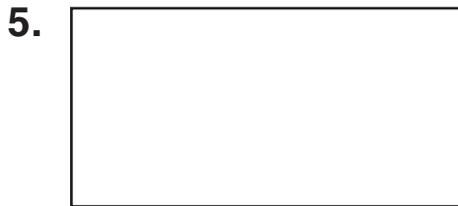
$$\underline{\quad} \text{ tens } \underline{\quad} \text{ ones} = \underline{\quad} + \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \text{ tens } 4 \text{ ones} = 10 + \underline{\quad} = \underline{\quad}$$

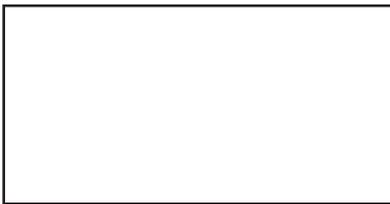


$$\underline{\quad} \text{ tens } \underline{\quad} \text{ ones} = \underline{\quad} + \underline{\quad} = \underline{\quad}$$



$$5 \text{ tens } 3 \text{ ones} = \underline{\quad} + \underline{\quad} = \underline{\quad}$$

6. Make your own.



$$\underline{\quad} \text{ tens } \underline{\quad} \text{ ones} = \underline{\quad} + \underline{\quad} = \underline{\quad}$$



NOTE: Your child is learning the value of the digits in two-digit numbers. Ask your child to tell how many tens and ones are in different numbers around you.

What number from the box will complete each riddle?

7. My tens digit has a value of 40.
My ones digit is more than 5.

49

15	19	22
28	32	35
43	49	53
69	72	85
88	90	94

8. My tens digit has a value of 90.
My ones digit is less than 4.

9. Both of my digits are the same number. My tens digit has a value of 80.

10. My tens digit has a value less than 50. My ones digit has a value of 5.

11. My tens digit has a value less than 40. My ones digit is more than 7.



12. Make up your own riddle about a number in the box.

Problem Solving

13. I have more than 4 tens.
I have between 6 and 9 ones.

What number could I be? _____

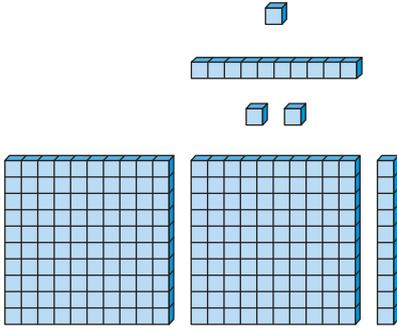
Draw a picture of the number.

Representing Three-Digit Numbers

NCTM Standards 1, 6, 8, 9, 10

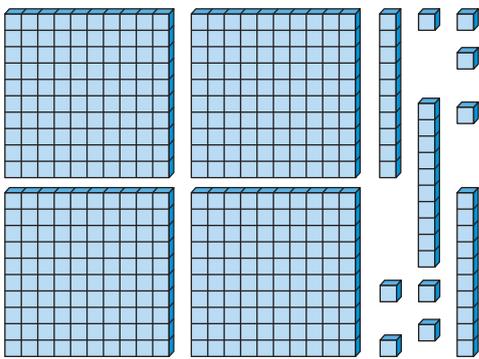
What is missing? Draw symbols and write numbers.

1.



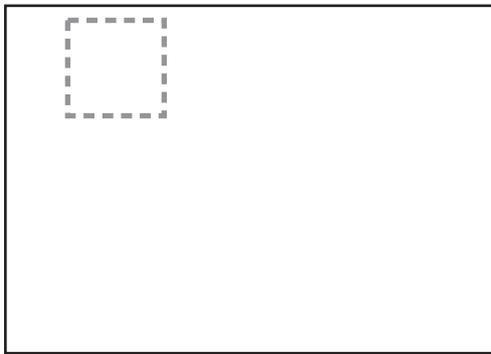
$$\begin{array}{r} \underline{2} \text{ hundreds } \underline{2} \text{ tens } \underline{3} \text{ ones} \\ \underline{200} + \underline{20} + \underline{3} = \underline{223} \end{array}$$

2.



$$\begin{array}{r} \underline{\quad} \text{ hundreds } \underline{\quad} \text{ tens } \underline{\quad} \text{ ones} \\ \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

3.



$$\begin{array}{r} \underline{\quad} \text{ hundreds } \underline{\quad} \text{ tens } \underline{\quad} \text{ ones} \\ \underline{\quad} + \underline{\quad} + \underline{\quad} = 706 \end{array}$$

4. Make your own.



$$\begin{array}{r} \underline{\quad} \text{ hundreds } \underline{\quad} \text{ tens } \underline{\quad} \text{ ones} \\ \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$



NOTE: Your child is learning the value of digits in three-digit numbers. Ask your child to tell how many hundreds, tens, and ones are in different numbers you name.

Toss 5 small counters onto the grid.
Record the numbers. An example is
given in Problem 5.

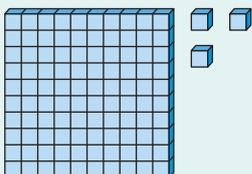
1	100	10	10	1	10	1
100	1	1	10	10	100	1
1	100	10	10	10	100	100

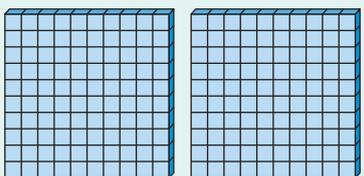


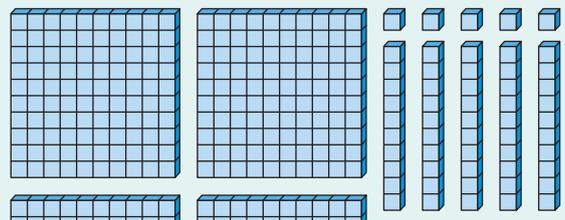
	Numbers That Counters Land On	Total
5.	<u>10</u> + <u>100</u> + <u>1</u> + <u>1</u> + <u>10</u>	<u>122</u>
6.	_____ + _____ + _____ + _____ + _____	_____
7.	_____ + _____ + _____ + _____ + _____	_____
8.	_____ + _____ + _____ + _____ + _____	_____

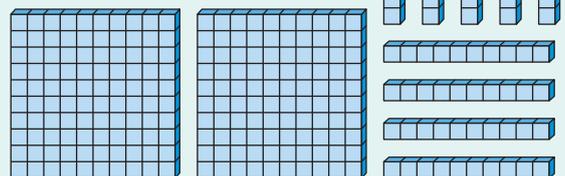
Challenge

What number is 10 more?

9.  _____

 _____

10.  _____

 _____

60 sixty

LX

12



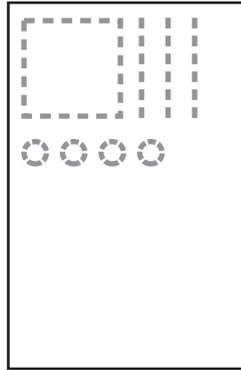
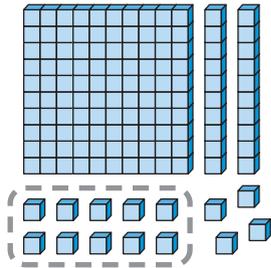
5 dozen

Regrouping

NCTM Standards 1, 6, 7, 8, 9, 10

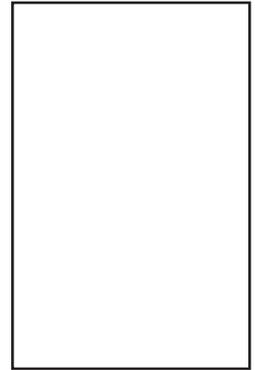
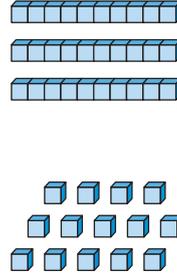
Show each number with the fewest blocks.
Draw symbols for the blocks.

1.

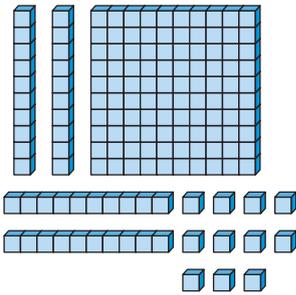


134

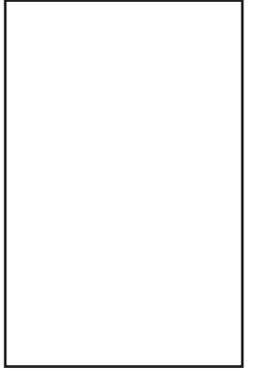
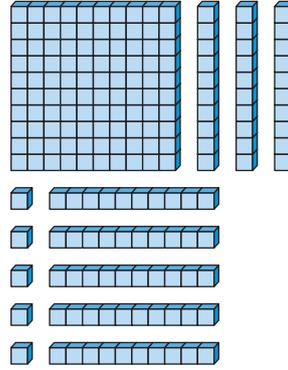
2.



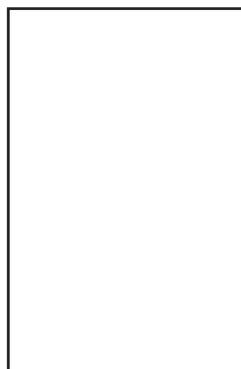
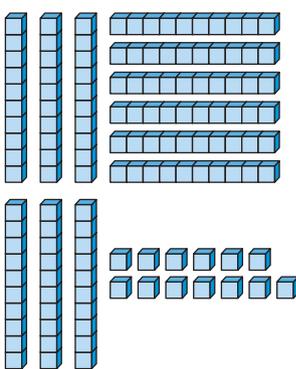
3.



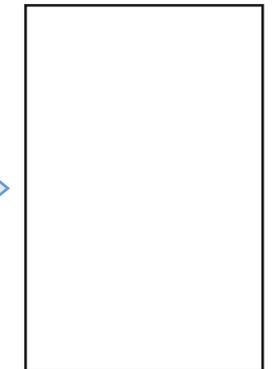
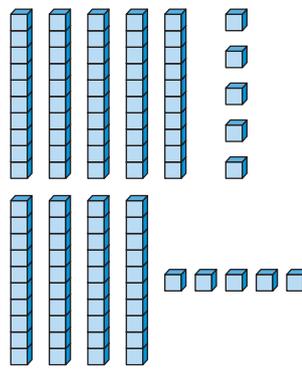
4.



5.



6.



NOTE: Your child is learning to regroup tens and ones to show the same number in different ways.

Regroup in different ways.

7.

24

0 tens 24 ones

1 tens 14 ones

 tens ones

8.

38

 tens ones

 tens ones

 tens ones

 tens ones

-  9. Choose any two-digit number. How many ways can you regroup? Draw or write to show the ways.

Number

Problem Solving

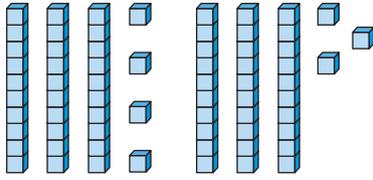
10. Elva has 36¢. She has only dimes and pennies. What different combinations of coins might she have? Use words, numbers, or pictures to explain.

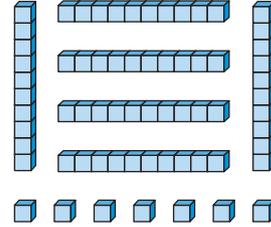
Using Place Value to Compare

NCTM Standards 1, 2, 6, 7, 8, 9, 10

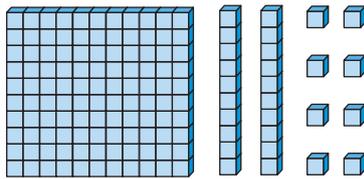
Write the numbers. Then write $>$, $<$, or $=$.

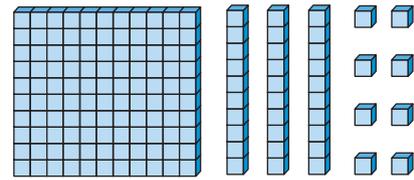
1.



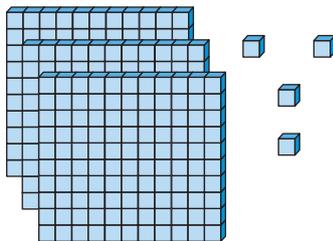


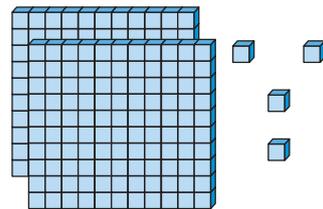
2.





3.





4. Make your own.



NOTE: Your child is learning to compare two- and three-digit numbers. Ask your child to compare the ages of various family members.

Write a digit to make each sentence true.

5. $678 < \underline{7}78$

6. $364 < \underline{\quad}64$

7. $420 > \underline{\quad}20$

8. $7\underline{\quad}8 < 768$

9. $8\underline{\quad}4 > 864$

10. $2\underline{\quad}7 < 267$

11. $40\underline{\quad} > 403$

12. $26\underline{\quad} < 269$

13. $51\underline{\quad} < 515$

14. $623 > 6\underline{\quad}3$

15. $\underline{\quad}92 > 492$

16. $134 < 13\underline{\quad}$



17. Write all possible answers for Problem 16. Use words, numbers, or pictures to explain.



Problem Solving

18. Jim's soccer team got 32 goals this season. The number of goals last season was a lot less. It had the same ones digit. How many goals do you think they got last year? Explain.

Use what you know about place value to help you.



Connecting Numbers and Words

NCTM Standards 1, 2, 6, 7, 8, 9, 10

What number matches each word?

1. twenty-nine 29
2. twelve _____
3. sixty _____
4. one hundred ten _____
5. thirty-three _____
6. ninety-one _____
7. two hundred three _____
8. eighty-four _____

9. What is the order from smallest to biggest?

12
67
0
15
51
38

0

10. What is the order from biggest to smallest?

230
42
18
75
501
342
40
96

NOTE: Your child is learning to write numbers for number words and to order numbers. Ask your child to write the number for fifty-eight.

Complete each number word in any way.
Then write the numbers in order from
biggest to smallest.

11. forty-seven 47
thirty -six 36
 _____-four _____
 seventy-_____ ... _____



Use the list to help you write the words.

one	two	three
four	five	six
seven	eight	nine
twenty	thirty	forty
fifty	sixty	seventy
eighty	ninety	hundred

In order: _____, _____, _____, _____

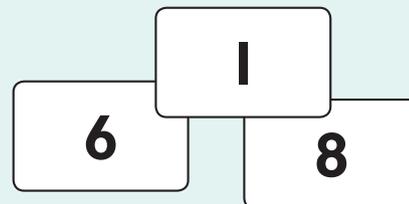
12. _____ hundred fifty-five _____
 two hundred _____ -two _____
 four hundred seventy- _____ _____
 _____ hundred twenty- _____ _____

In order: _____, _____, _____, _____



Challenge

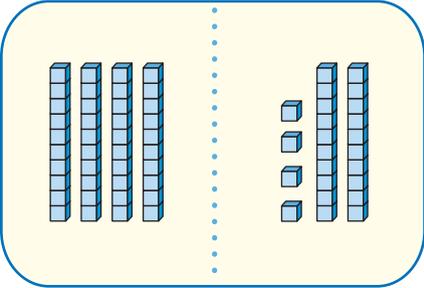
13. What is the biggest number you can make from these digits? What is the smallest? Explain.

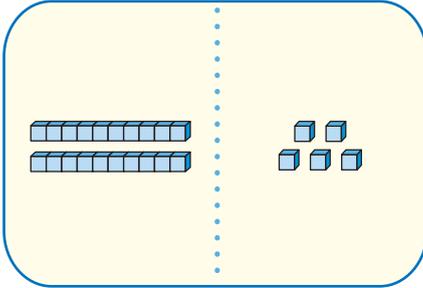
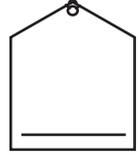


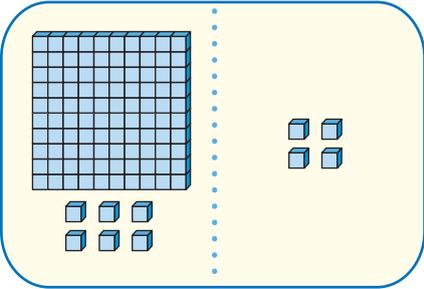
Working with Hundreds, Tens, and Ones

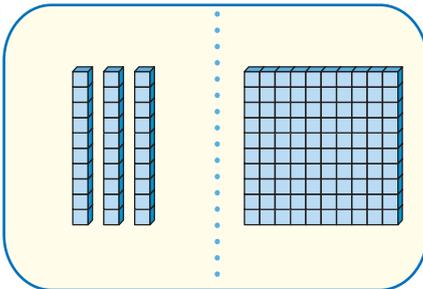
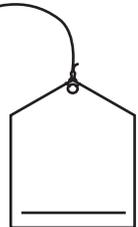
NCTM Standards 1, 2, 6, 8, 9, 10

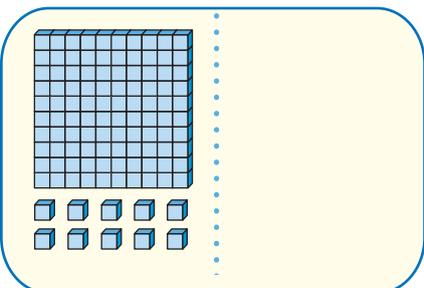
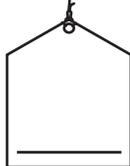
What number is shown by the blocks?

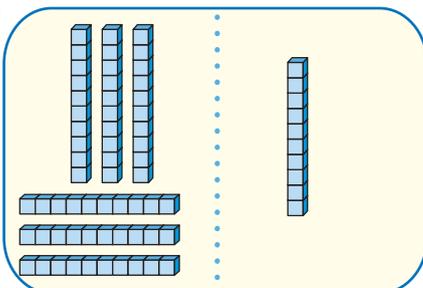
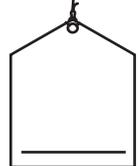
1.  

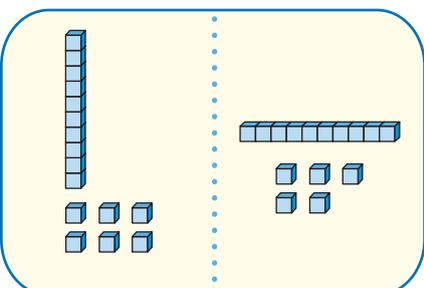
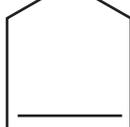
2.  

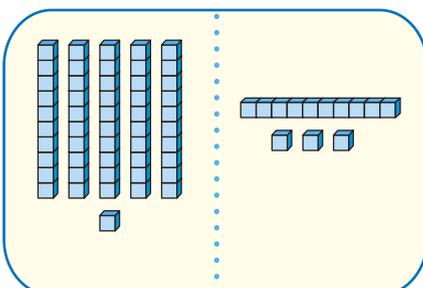
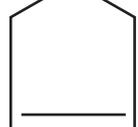
3.  

4.  

5.  

6.  

7.  

8.  



NOTE: Your child is learning that you name a number by combining hundreds with hundreds, tens with tens, and ones with ones.

9. Which pairs make 100? Circle them as fast as you can.

Sums of 100 Search								
40 60	60 40	60 50	30 60	30 70	80 20	10 90	50 60	20 80
80 20	90 10	10 80	90 10	60 30	20 90	20 80	40 60	50 50
80 20	90 20	30 60	20 90	70 30	70 20	60 30	70 30	20 80
40 60	50 60	50 50	30 70	40 60	50 50	70 30	80 20	30 80



10. Pick one of the number pairs that you circled. How do you know that it has a sum of 100?

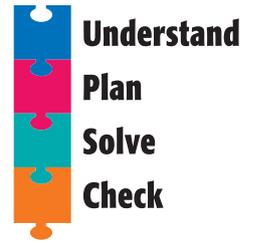
Problem Solving

11. Marcy is thinking of a number. It has 6 tens, 4 ones, 2 hundreds. What is her number? _____
Show Marcy's number in three different ways.

Problem Solving Strategy

Draw a Picture

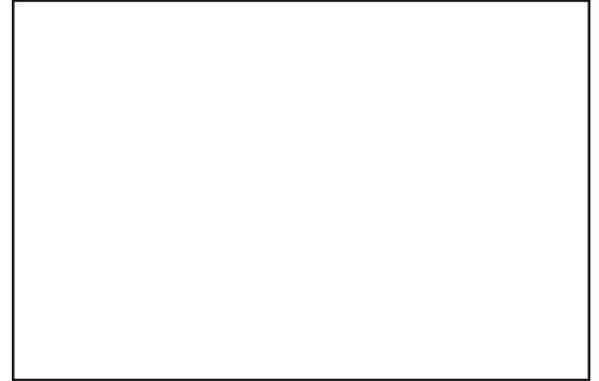
NCTM Standards 1, 2, 6, 7, 8, 9



1. Mr. Brown's art room has 1 box of pencils, 2 packages of pencils, and 3 loose pencils. Ms. Gold's art room has 1 box and 5 packages of pencils. How many pencils are there in all?

1 package 10 pencils
1 box = 100 pencils

_____ pencils



2. There are 4 children in line. Laura is last. Charles is between Kim and Dan. Kim is next to Laura. Who is first in line?

_____ is first.



3. Dogs, people, and fish live in a house. There are 8 heads and 18 legs. There are 3 dogs. How many people and fish are in the house? (Hint: A fish has no legs.)

3 _____ dogs _____ people _____ fish



NOTE: Your child is exploring different ways to solve problems. Sometimes drawing a picture is an efficient way to solve a problem.



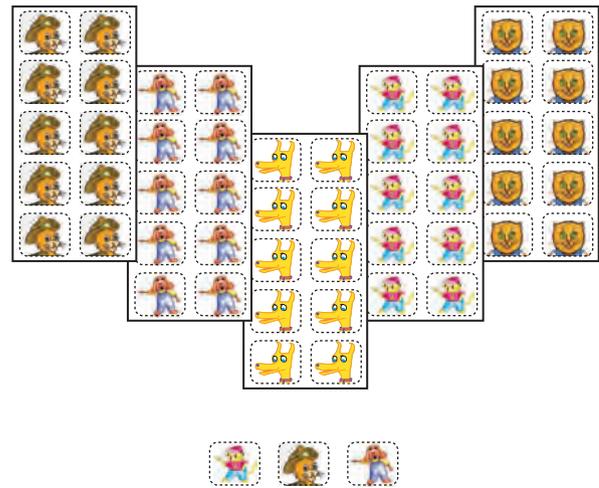
Problem Solving Test Prep

1. The drawing shows how many pennies Tara saved each day. If the pattern continues, how many pennies will she save on Thursday?



- (A) 8 (C) 12
- (B) 10 (D) 16

2. Denise has 5 pages of 10 stickers and 3 loose stickers. Tom has 20 more stickers than Denise. How many stickers does Tom have?



- (A) 35 (C) 59
- (B) 37 (D) 73

Show What You Know

3. Ty asked 9 friends to name their favorite sport. Most like soccer best. The rest like football best. How many friends do you think like each sport?

_____ like soccer best.

_____ like football best.

Tell how you found your answer.

4. Rob has 8 crayons. Lena has 7 more crayons than Rob. What number sentence can you use to find how many crayons Lena has?

Tell how you found your answer.

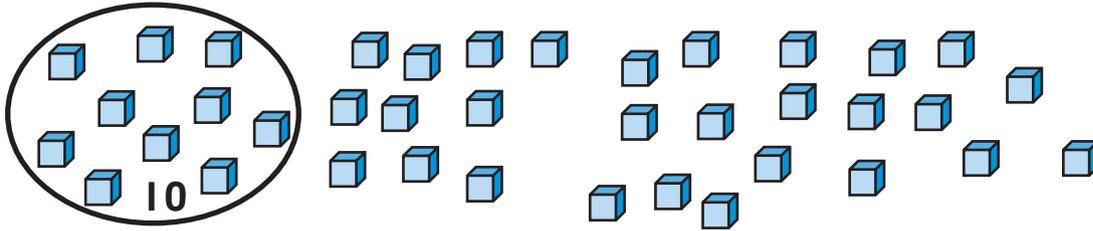


Chapter 3

Review/Assessment

NCTM Standards 1, 6, 7, 8, 9, 10

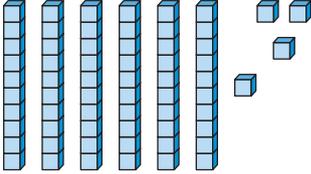
1. How many are there? Use the set of 10 to estimate.
Then count to find the total. *Lesson 1*



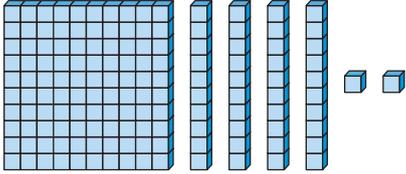
Estimate _____

Count _____

What number do the blocks show? *Lesson 2*

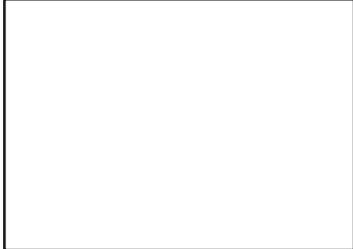
2. 

_____ tens _____ ones → _____

3. 

_____ hundred _____ tens _____ ones → _____

What is missing? Draw symbols and write numbers. *Lessons 3, 4*

4. 

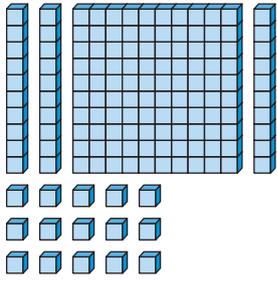
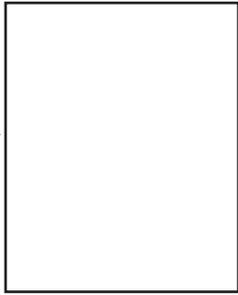
7 tens 5 ones _____ + _____ = _____

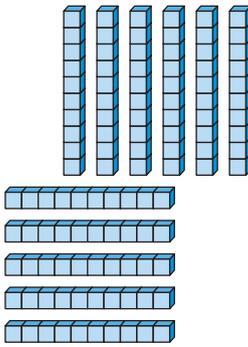
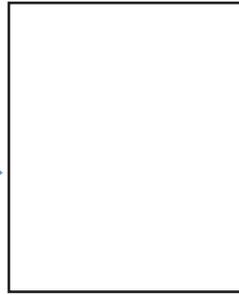
5. 

_____ hundreds _____ tens _____ ones

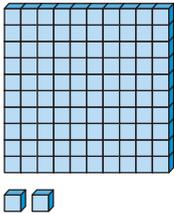
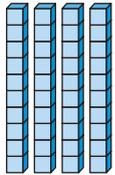
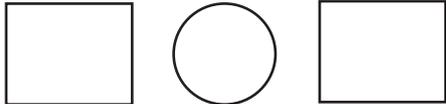
_____ + _____ _____ 309

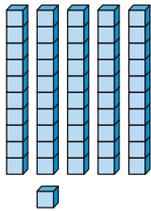
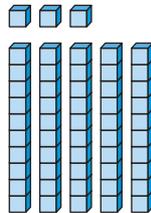
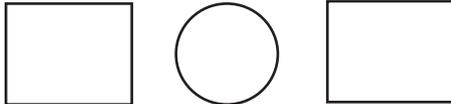
Show each number with the fewest blocks
 Draw symbols for the blocks. Lesson 5

6.   

7.   

Write the numbers. Then write $<$, $>$, or $=$. Lessons 6, 8

8.  


9.  


10. Write the numbers in order from biggest to smallest. Lessons 6, 7

- 150 51 75 501 455 40

_____, _____, _____, _____, _____, _____

Problem Solving Lesson 9

11. Fran, George, Helena, and Jaime are in line for ice cream. Fran is third in line. George is between Jaime and Fran. Who is last in line?

