Chapter 1

Name _____

Counting Strategies

Paper Clip Patterns

You need
- large and small paper clips

Make patterns with paper clips.

STEP 1 Creating Patterns

How many different patterns did you make? _____

Draw one of your patterns here.

_____

STEP 2 Describing Patterns

Use words to tell about the pattern you drew.

_____

Which is your favorite pattern? Tell about it. _____

_____

STEP 3 Extending Patterns

Continue one of your patterns. How did you know what to do?

_____

_____

_____

_____

Investigation

School-Home Connection

Dear Family,

Today we started Chapter 1 of ***Think Math!*** In this chapter, I will explore numbers, number lines, patterns, skip-counting, addition, subtraction, and even multiplication. 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 numbers and counting patterns.

Love,

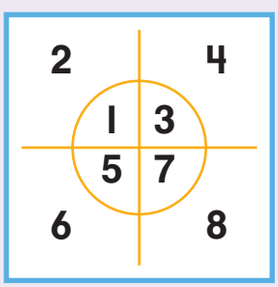
_____

Family Fun

What's My Number?

Work with your child to play a game called *What's My Number?* Your child will play this game later in this chapter.

- Tell your child you are thinking of a number from 1 to 8.
- Your child asks up to four *yes/no* questions to find the secret number. Each question should get rid of several numbers at once. Some good questions to ask are: "Is your number odd?" or "Is your number less than 5?"



- After each question, your child crosses off the numbers that have been eliminated.
- Your child wins the game if he or she guesses the secret number with up to 4 questions.

Number Puzzle

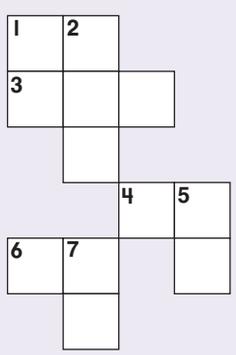
Work with your child to complete the number puzzle.

Across

1. 7 + 7 = ___
3. 170, 180, 190, ___
4. 1 + 2 + 3 + 4 + 5 = ___
6. 15, 17, 19, ___

Down

1. 8, 10, ___, 14
2. 100, 200, 300, ___
5. 40, 45, 50, ___
7. 8 + 8 = ___



Chapter 1
Lesson 1

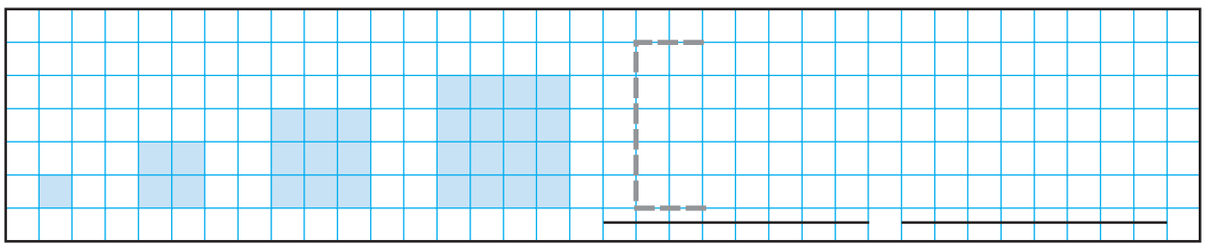
Name _____ Date _____

Repeating and Growing Patterns

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

What comes next? Continue each pattern.

1.



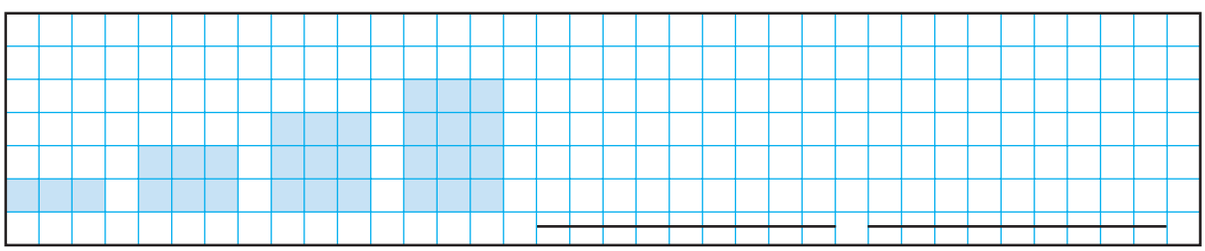
2.

X O X O X O X O X O X _____ _____ _____

3.

4 5 6 4 5 6 4 5 6 _____ _____ _____

4.



5. Make your own pattern. Draw it here.

NOTE: Your child is learning about patterns that repeat and grow. Together, look around your home for different patterns.



Is it a repeating pattern? Circle *yes* or *no.*
If *yes,* circle the pattern unit.

6.  (yes) no

7.  yes no

8. 5 10 15 20 25 yes no

9.  yes no

10. Choose a pattern from above that does NOT repeat.
How does the pattern grow?

Problem Solving

11. Carey gets 5 cents each day.
In how many days will she have
25 cents? Use words, numbers,
or pictures to explain.

_____ days

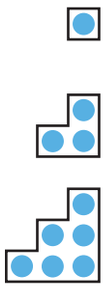
Chapter 1
Lesson 2

Name _____ Date _____

Working with Number Patterns

NCTM Standards 1, 2, 6, 9, 10

1. Continue the pattern. What is missing?



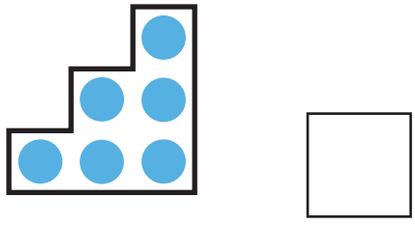
Stair-Step Table	
Number of Steps Up	Number of Dots
1	1
2	3

How many dots are on each card?

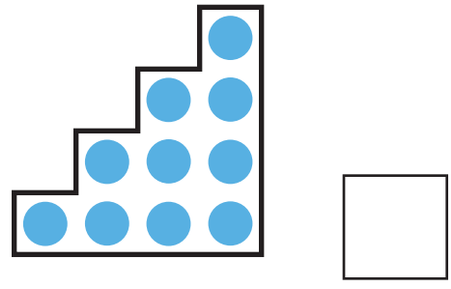
2.

3.

4.

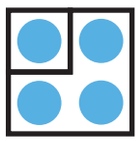


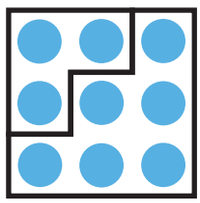
5.

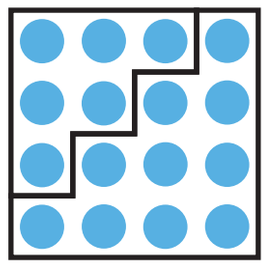


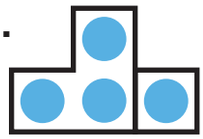
NOTE: Your child is using Stair-Step Cards to show patterns. The cards can be put together to make squares and show designs.

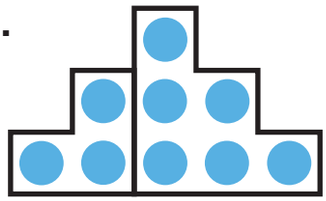
Each figure is made from two cards. How many dots are in each figure? Record below.

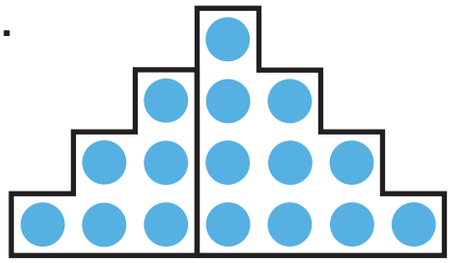
6. 

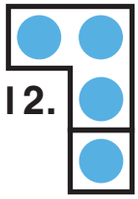
7. 

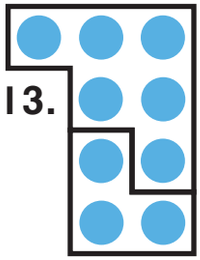
8. 

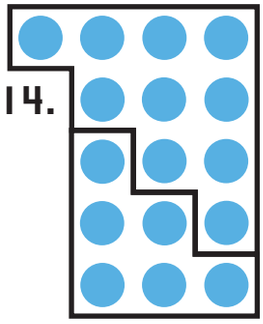
9. 

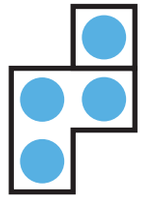
10. 

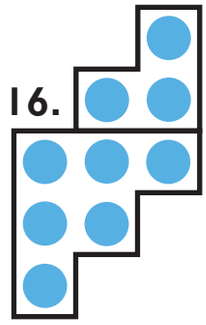
11. 

12. 

13. 

14. 

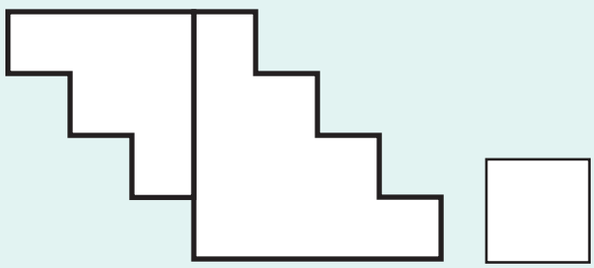
15. 

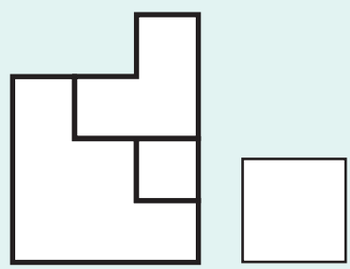
16. 

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

Challenge

How many dots are missing from each figure?

17. 

18. 

Chapter 1
Lesson 3

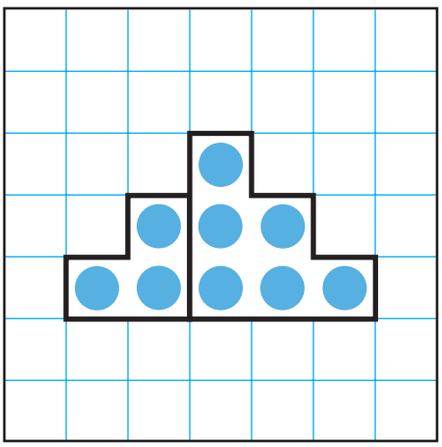
Name _____ Date _____

Writing Number Sentences

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

Write number sentences to go with each figure.

1.

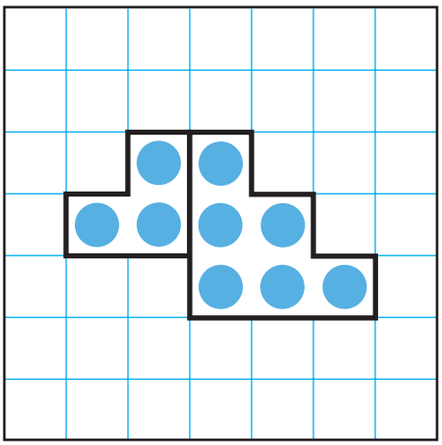


$9 - 3 = 6$

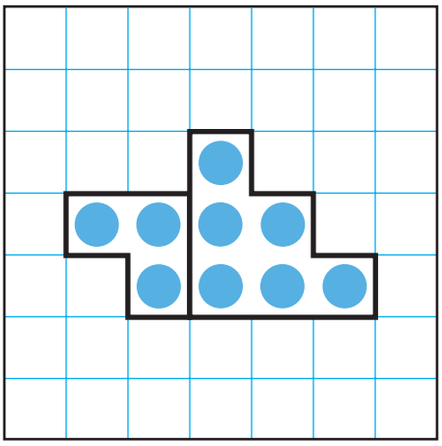
$1 + 2 + 3 + 2 + 1 = 9$

$5 + 3 + 1 = 9$

2.



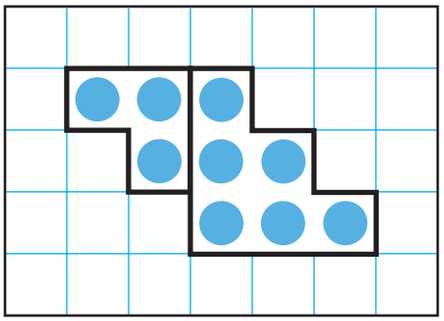
3.



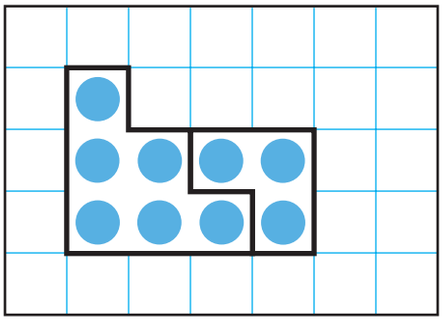
NOTE: Each figure is made from two Stair-Step Cards. Your child is learning to write number sentences about the dots in each figure by looking at the cards, the rows, and the columns.

Write number sentences to go with each figure.

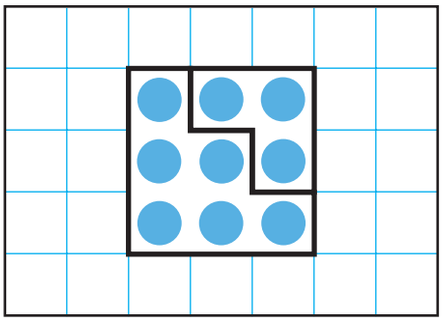
4.



5.

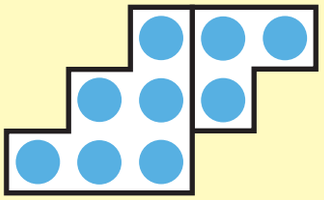


6.



Problem Solving

7. How can both $3 + 6 = 9$ and $6 + 3 = 9$ tell about the same picture?



Chapter 1
Lesson 4

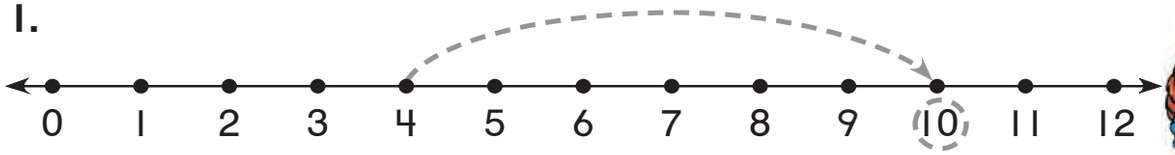
Name _____ Date _____

Adding and Subtracting on the Number Line

NCTM Standards 1, 2, 6, 9, 10

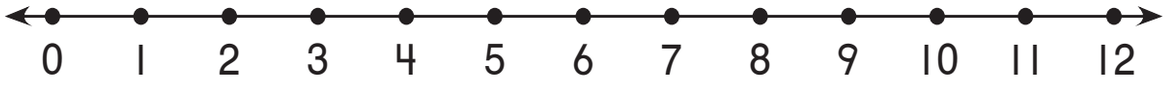
What is missing?

1.



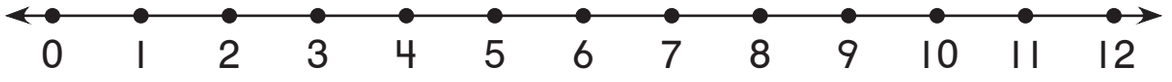
$4 + 6 = 10$

2.



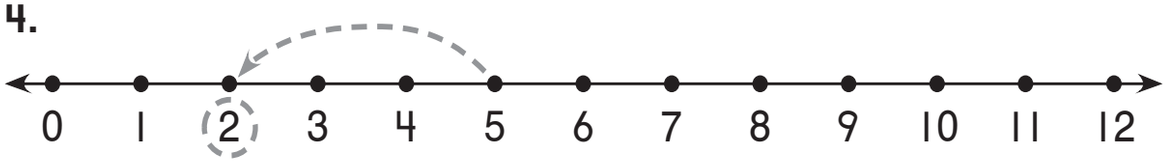
$2 + 7 = 9$

3.



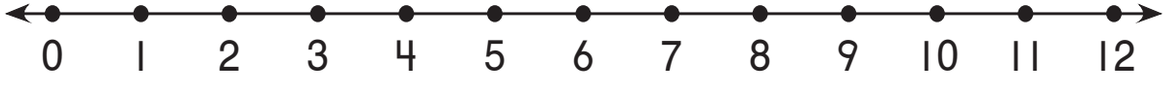
$8 + 3 = 11$

4.



$5 - 3 = 2$

5.

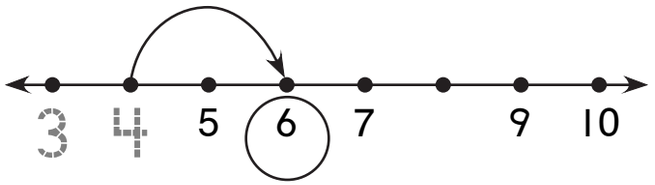


$10 - 6 = 4$

NOTE: Your child is using jumps on the number lines to show addition and subtraction.

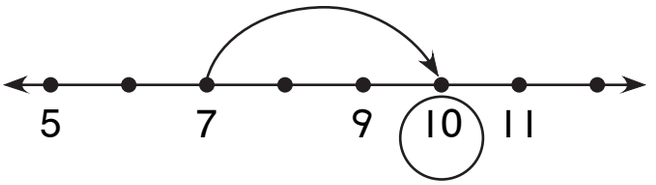
What number sentence is shown by the jump?

6.



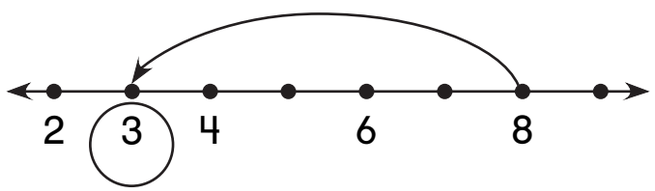
4 + 2 = 6

7.



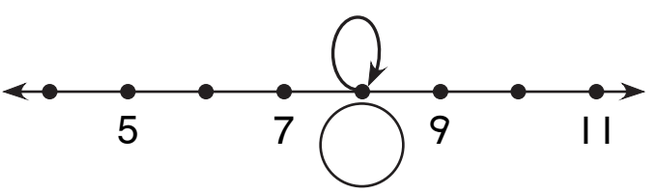
□ + □ = □

8.



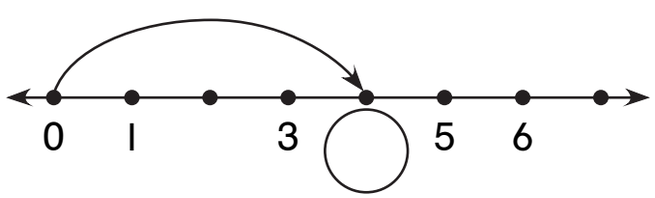
□ − □ = □

9.



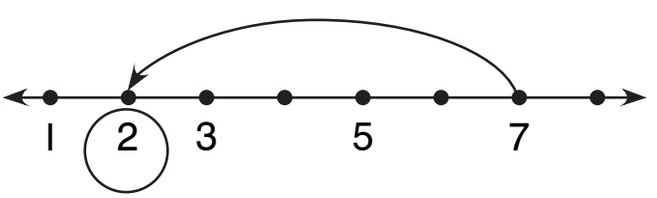
□ + □ = □

10.



□ + □ = □

11.

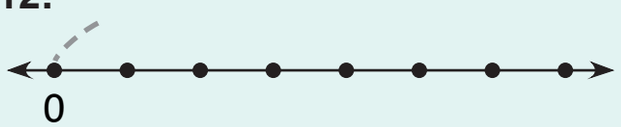


□ − □ = □

Challenge

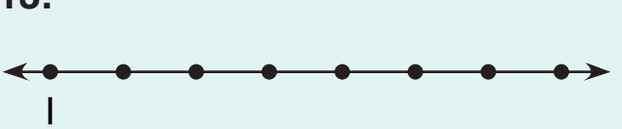
Make your own.

12.



0 + □ = □

13.



□ − □ = □

10 ten X 2

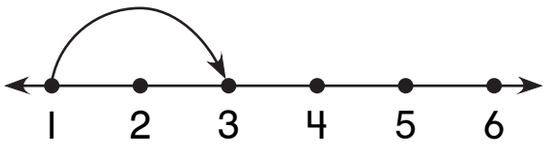
Name _____ Date _____

Completing Number Sentences

NCTM Standards 1, 2, 6, 10

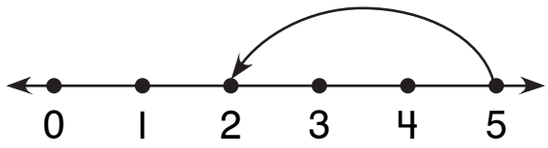
What number is missing?

1.



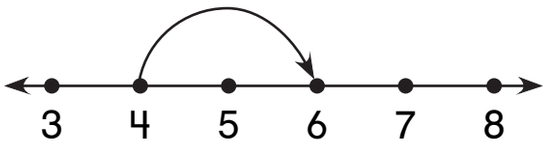
1 + 2 = 3

2.



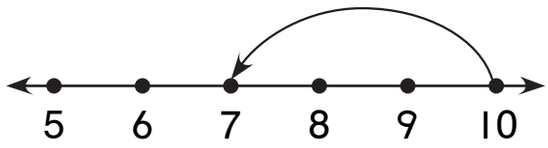
5 − 3 = ☐

3.



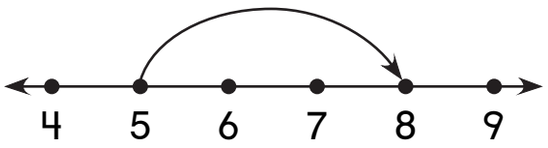
☐ + 2 = 6

4.



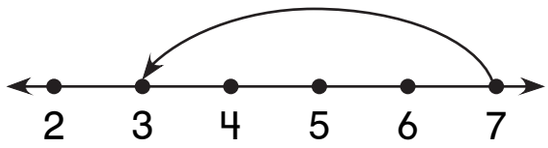
☐ − 3 = 7

5.



5 + ☐ = 8

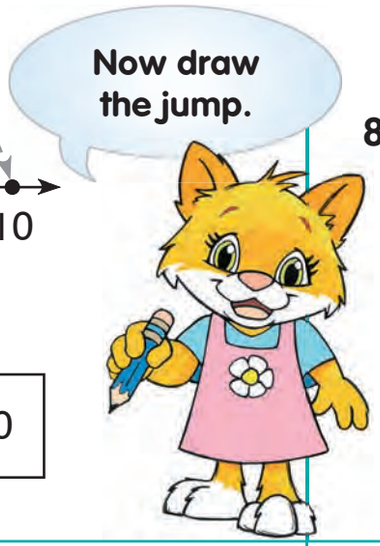
6.



7 − ☐ = 3

NOTE: Your child is learning to relate jumps on a number line to number sentences. Each number sentence shows the starting number, the jump size, and the landing number.

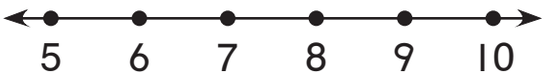
What number is missing?



7.

9 + ☐ = 10

8.

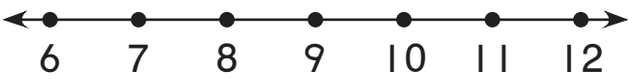


10 − ☐ = 8

9.

☐ + 3 = 10

10.



☐ − 4 = 6

Challenge

11. Find as many ways as you can.

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

☐ + ☐ = 10

Chapter 1
Lesson 6

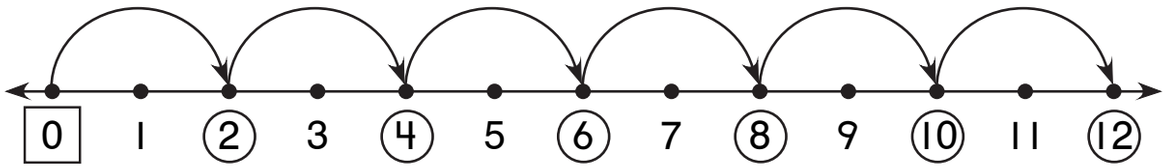
Name _____ Date _____

Skip-Counting on the Number Line

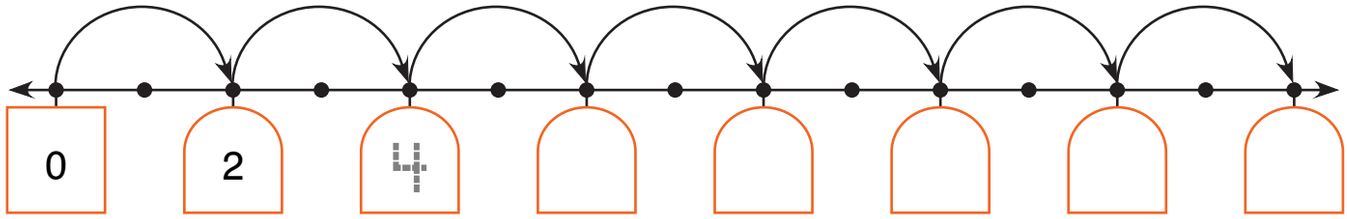
NCTM Standards 1, 2, 5, 6, 7, 8, 9, 10

Skip-count. What is missing?

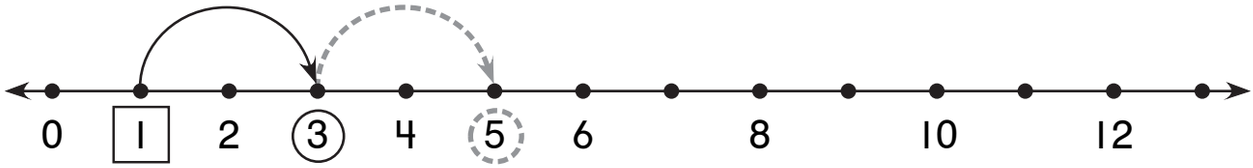
1. Start at 0. The jump size is 2.



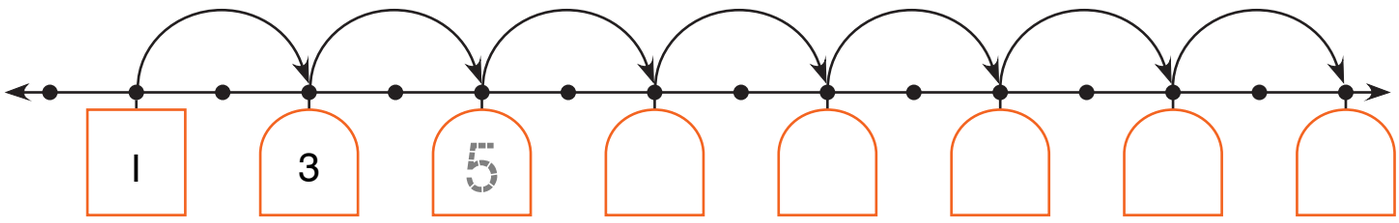
Number of Jumps	0	1	2	3	4	5	6	7
Landing Number	0	2	4	6				



2. Start at 1. The jump size is 2.



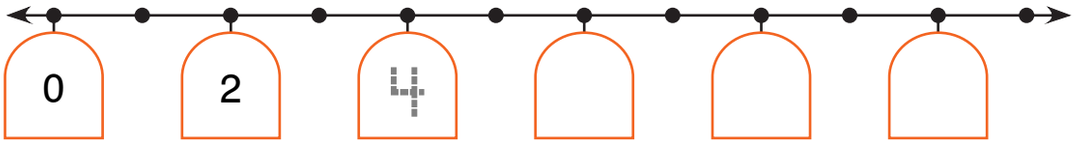
Number of Jumps	0	1	2	3	4	5	6	7
Landing Number	1	3	5					



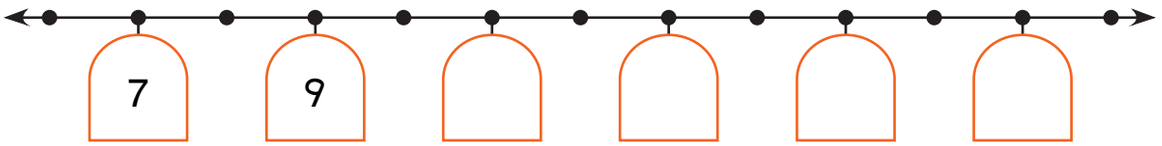
NOTE: Your child is learning to skip-count by different numbers on the number line. Together, practice skip-counting by twos from different starting numbers.

Skip-count. What are the missing numbers?

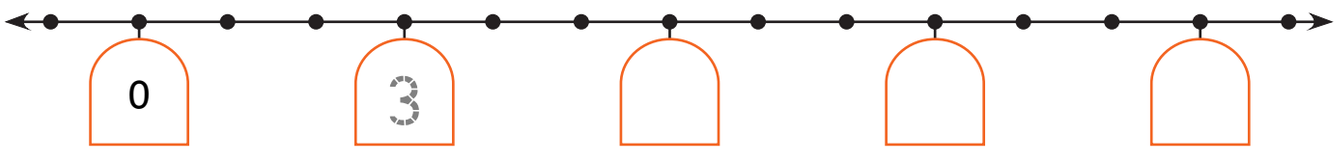
3.



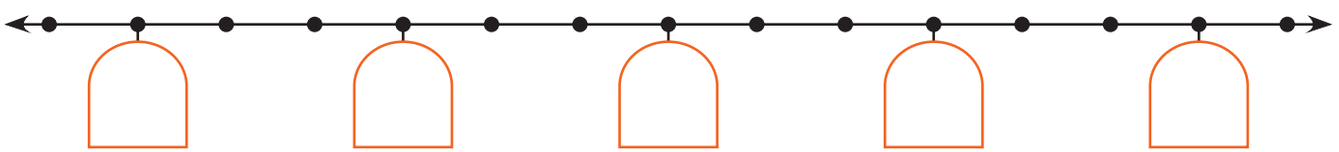
4.



5.



6. Make your own.



Problem Solving

7. Gracie says she can start at 0 and skip-count to 12 by threes. Tal says he can start at 0 and skip-count to 12 by fours. Who is right? Explain.

Chapter 1
Lesson 7

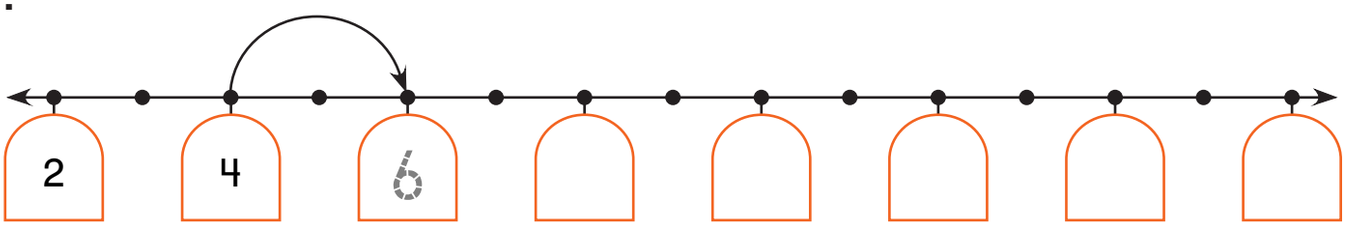
Name _____ Date _____

More Skip-Counting on the Number Line

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

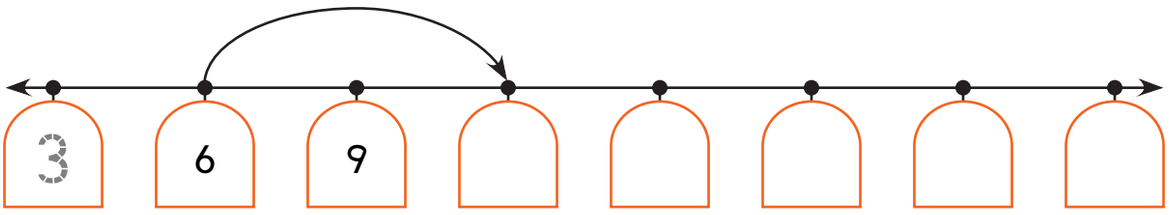
What is missing?

1.



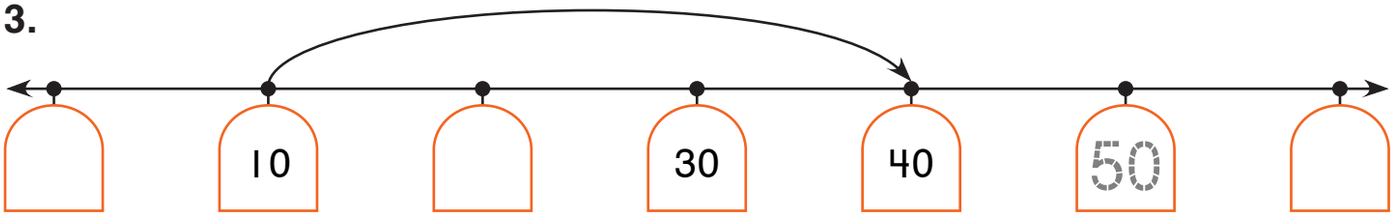
4 + ☐ = 6

2.



6 + ☐ = ☐

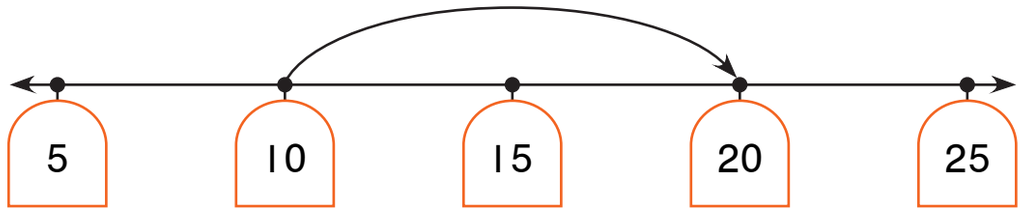
3.



☐ + ☐ = ☐

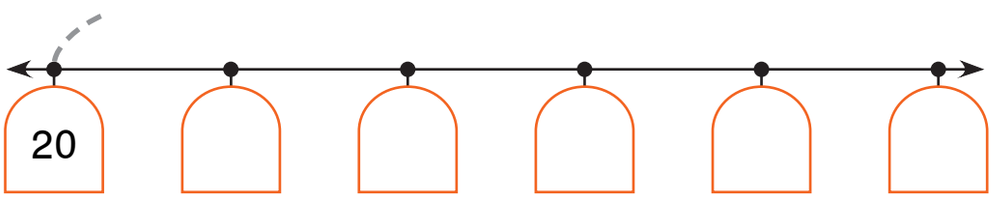
NOTE: Your child is learning to work with number lines where the space between the dots is worth more than 1. The number lines can be used to help complete the addition sentences.

4. What is missing?



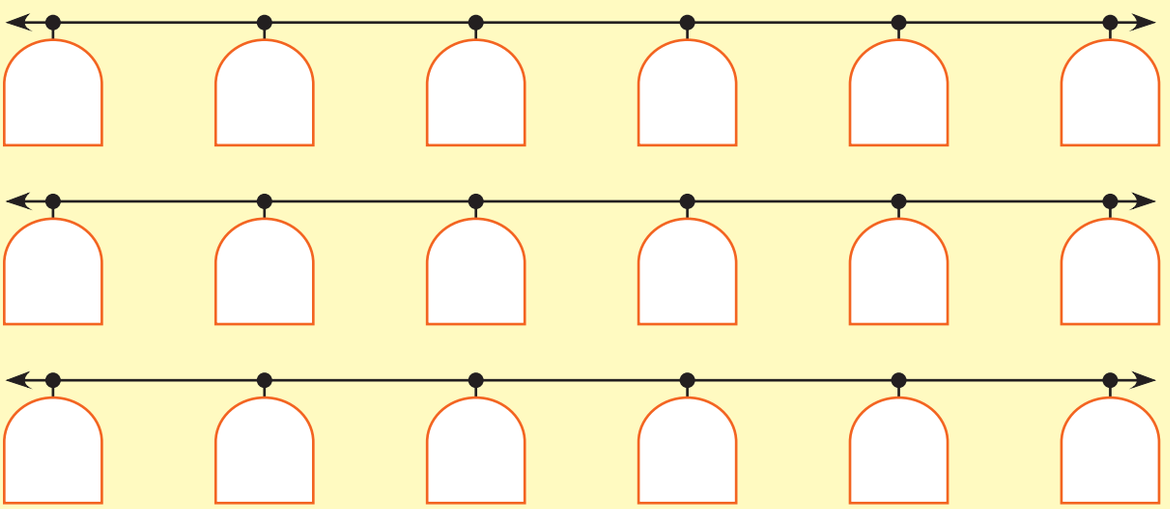
$\square + \square = 20$

5. Make your own number line to show $20 + 8 = 28$.



Problem Solving

6. You want to show $40 + 10 = 50$. What are some different ways to label the number line? Explain.



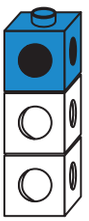
Chapter 1
Lesson 8

Name _____ Date _____

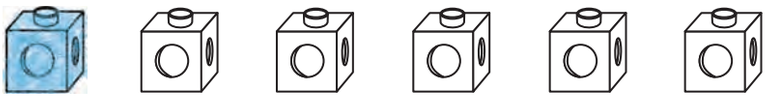
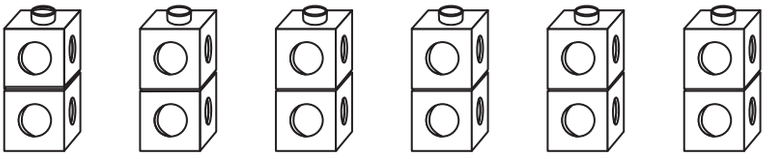
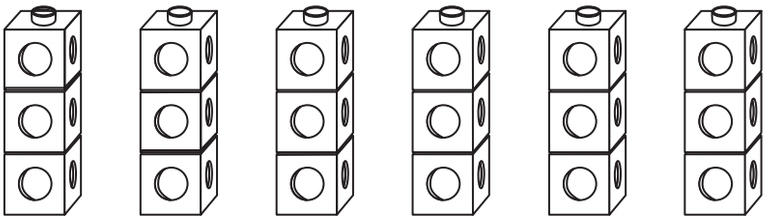
Systematic Counting

NCTM Standards 1, 2, 6, 9, 10

How many different towers can you build?
Follow the rules. Color to show the towers.
Mark an X on towers you do not color.

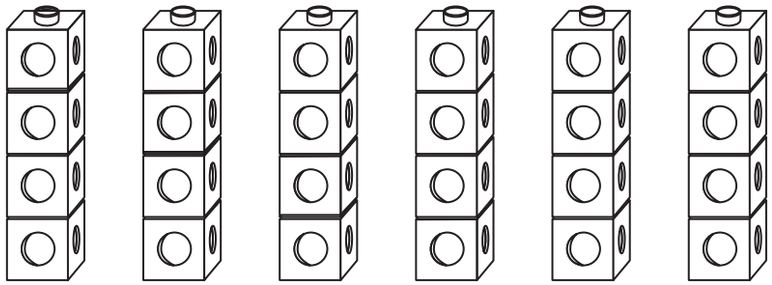
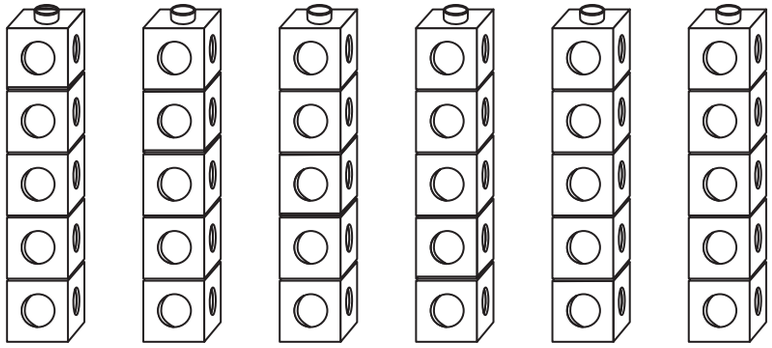
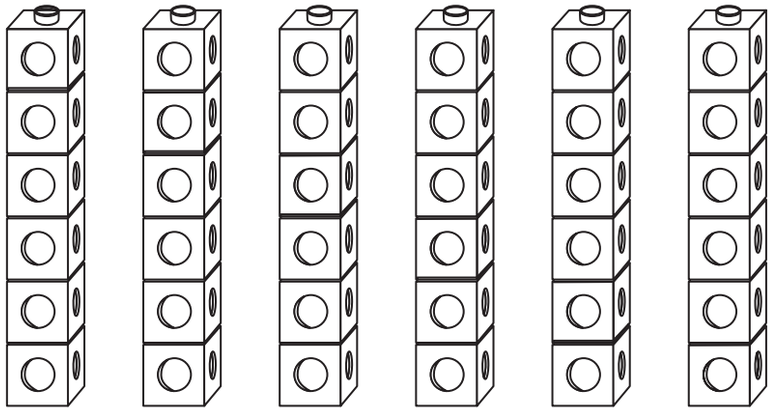


Rules: • Use one blue cube in each tower.
• Use cubes of another color to make the right height.

Height	Different Towers	Number of Towers
1. 1 cube tall		_____
2. 2 cubes tall		_____
3. 3 cubes tall		_____

NOTE: Your child is using cubes to build all possible towers for each height. Only one of the cubes is blue and the rest are another color.

How many different towers can you build?

Height	Different Towers	Number of Towers
4. 4 cubes tall		_____
5. 5 cubes tall		_____
6. 6 cubes tall		_____

Challenge

7. What is missing?

Number of Cubes	1	2	3					
Number of Different Towers	1							

Chapter 1
Lesson 9

Name _____ Date _____

Finding Ways to Make 10

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

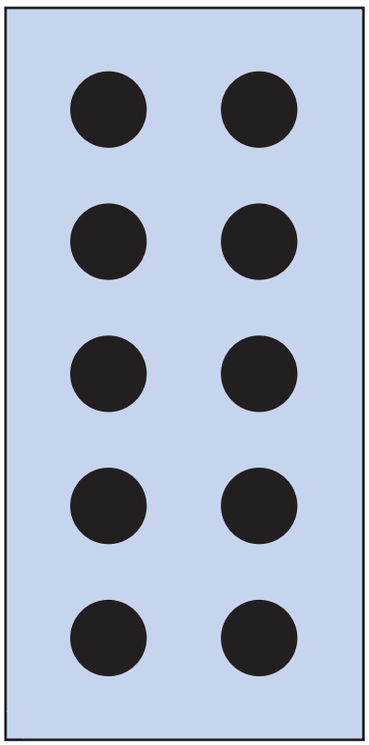
Sums of 10 Search

1. Which pairs make 10? Circle them as fast as you can.

4 6	6 4	6 5	8 2	9 1	1 8	1 9	5 6	2 8
3 6	3 7	8 2	9 1	6 3	2 9	2 8	4 6	5 5
6 3	7 3	2 8	2 9	7 3	7 2	8 2	9 2	3 6
4 6	5 6	5 5	3 7	4 6	5 5	6 4	7 3	8 2
9 1	2 9	7 2	7 3	8 2	3 8	4 7	5 5	1 8
0 9	8 2	6 4	7 3	4 6	9 1	6 3	1 9	3 7

NOTE: Your child is learning to quickly recognize pairs of numbers with a sum of 10. You can practice by saying a number and having your child name that number's partner to make 10.

2. How many ways can you make 10?



Uncovered	Covered
3	7

Problem Solving

3. I am thinking of two numbers with a sum of 10. One of the numbers is even. What can you say about the other number? What two numbers might they be?

_____

_____

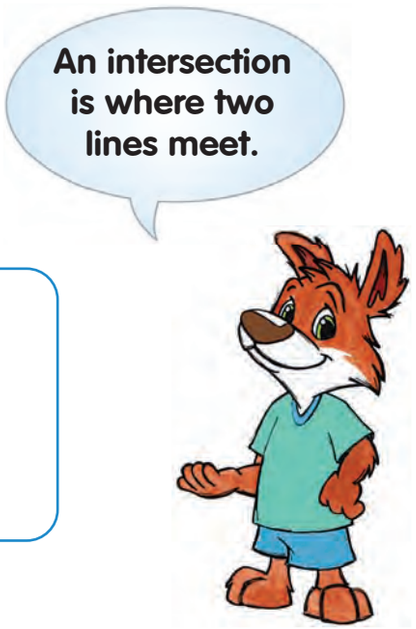
Chapter 1
Lesson 10

Name _____ Date _____

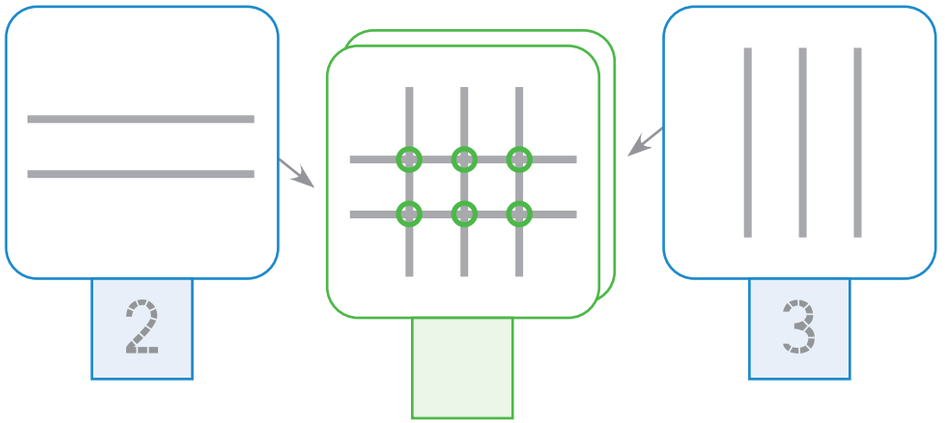
Previewing Multiplication, Part I

NCTM Standards 1, 2, 3, 6, 9, 10

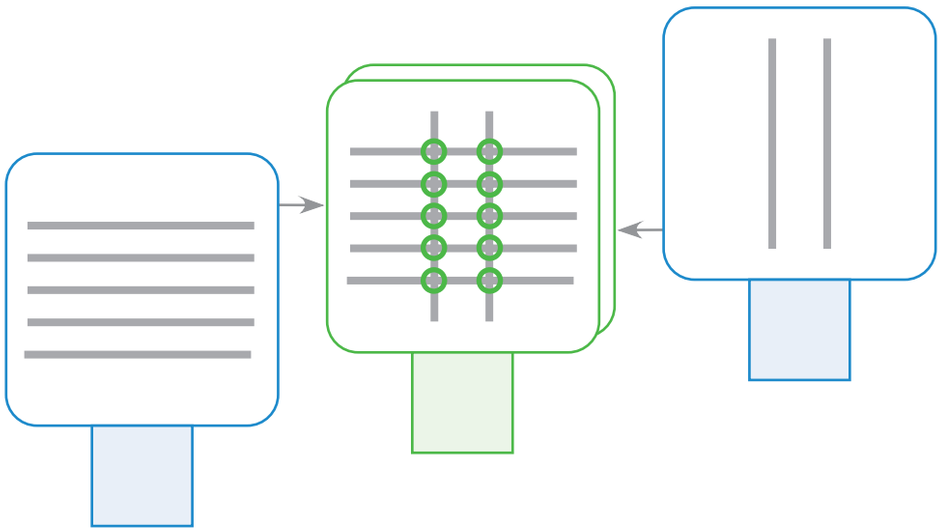
How many intersections are there?
Write the missing numbers.



1.



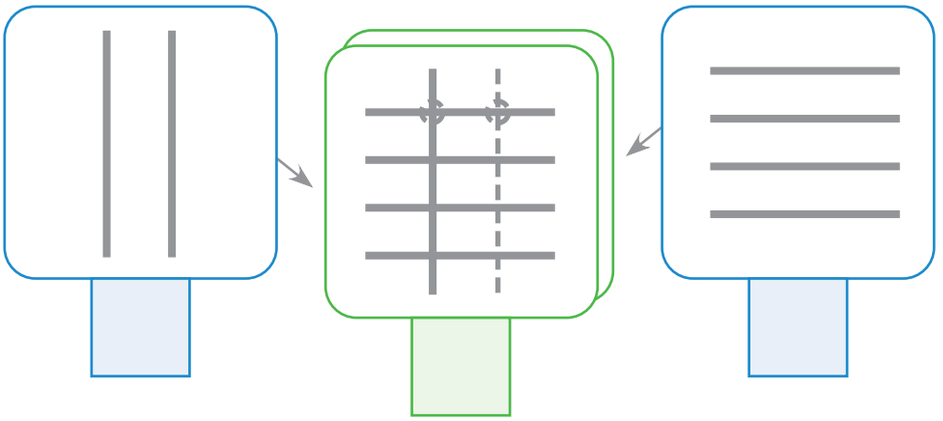
2.



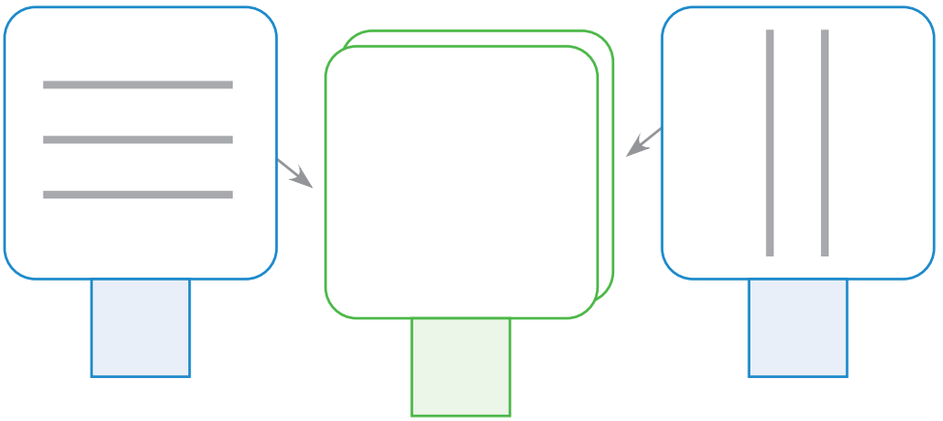
NOTE: Your child is exploring and counting intersecting lines. Pictures like these will be used later to model multiplication.

What is missing?

3.

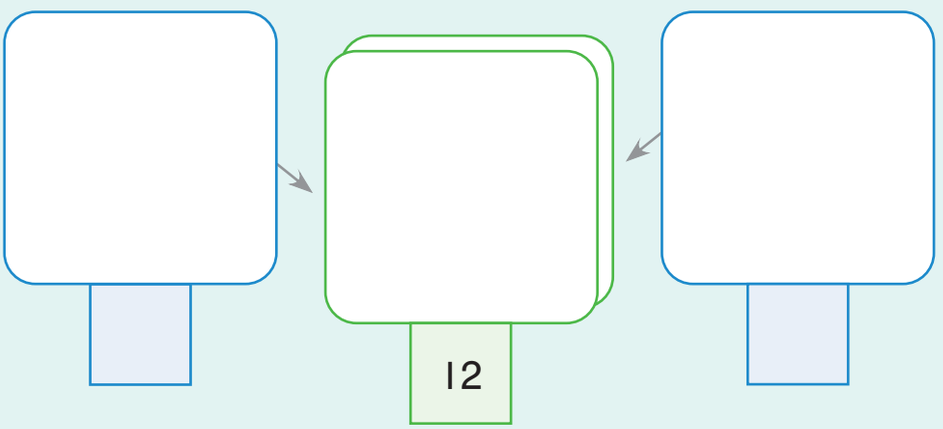


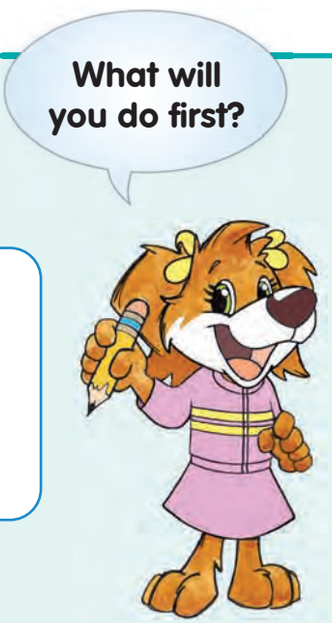
4.



Challenge

5. Make your own.





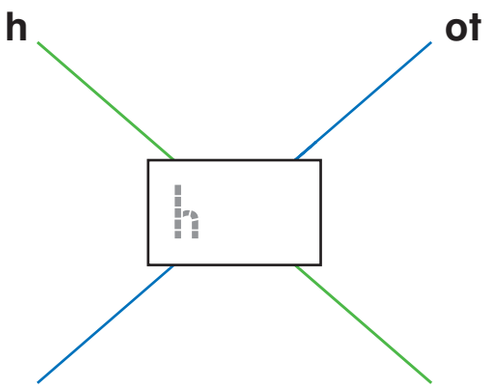
Name _____ Date _____

Previewing Multiplication, Part II

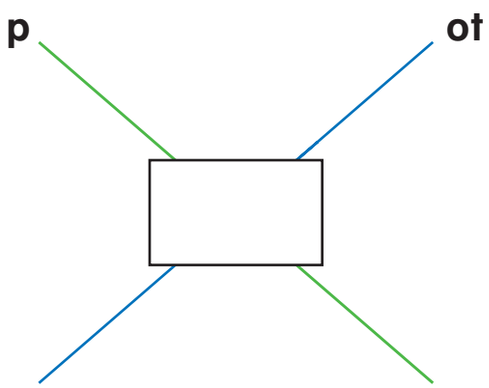
NCTM Standards 1, 2, 3, 6, 9, 10

What words can you make?

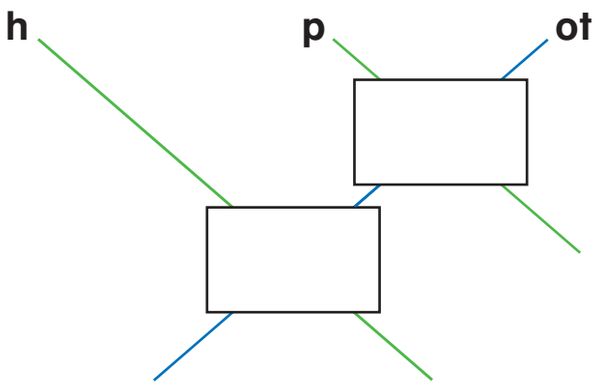
1.



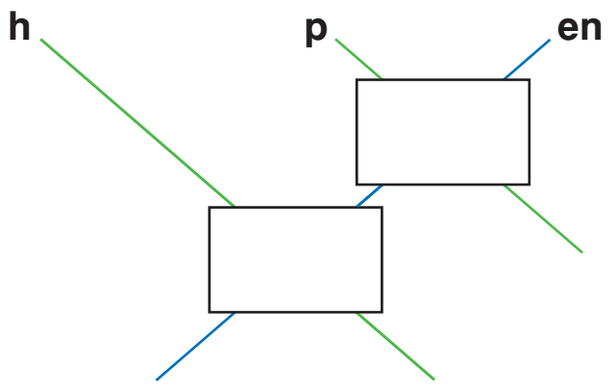
2.



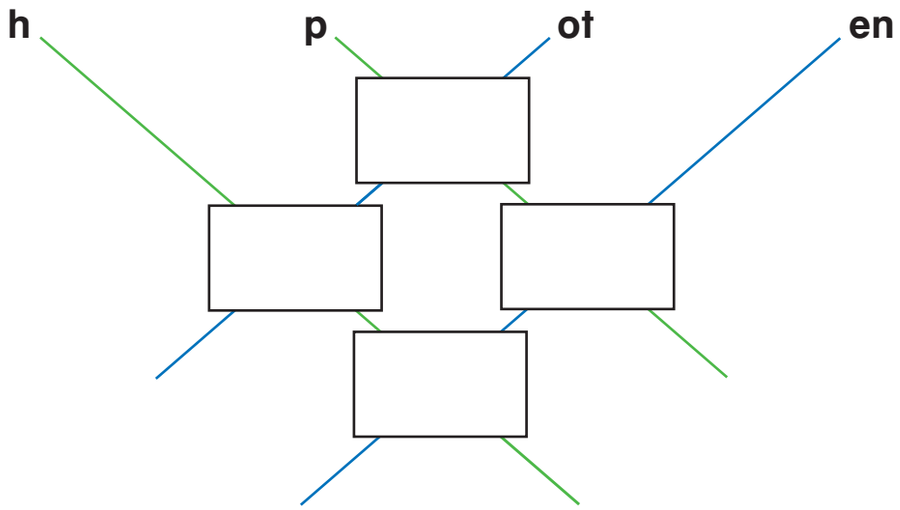
3.



4.

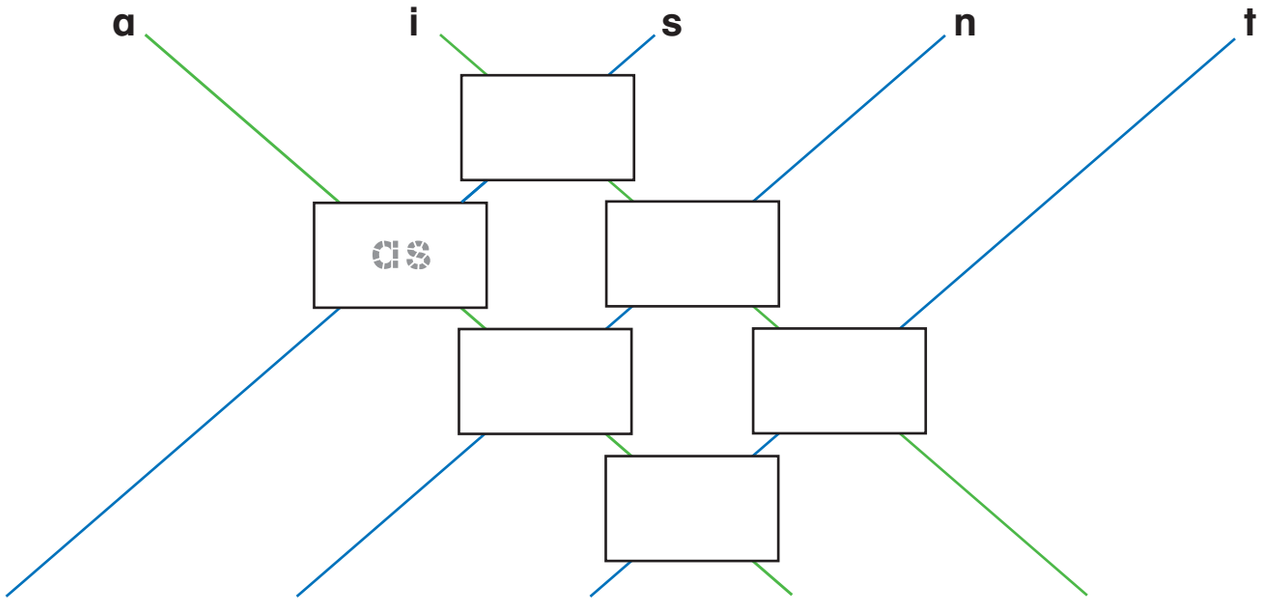


5.

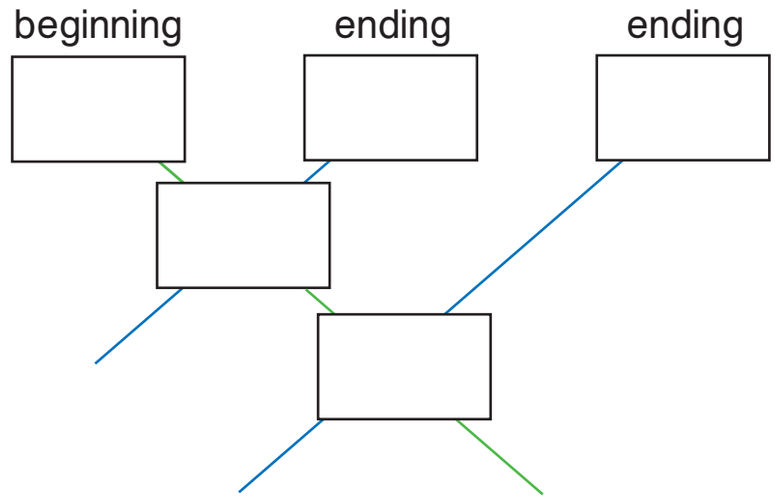


NOTE: Your child is learning to make words by combining letters at the intersections of lines. Pictures like these will be used later to model multiplication.

6. What words can you make?



7. Make your own.



Problem Solving

8. Kermit is making sandwiches with one meat and one cheese. Write a list of all the different sandwiches he can make.

Meat	Cheese
bologna	American
turkey	Swiss

_____ _____

_____ _____

_____ _____

Name _____ Date _____

Problem Solving Strategy
Look for a Pattern

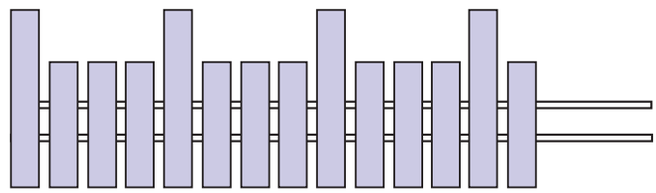
NCTM Standards 1, 2, 6, 7, 8, 9, 10

Understand
Plan
Solve
Check

1. What is the number of the third house after 18 South Street? Explain.

2. What is the number of the house where the next tree should be planted? Explain.

3. Tammy is building a fence around her yard. Draw the next two fence posts. Explain how you know what to draw.



NOTE: Your child is exploring different ways to solve problems. Sometimes looking for a pattern is an efficient way to solve a problem.

Problem Solving Test Prep

1. Carla has 6 games. Jeff has 4 games. How many games do they have altogether?

Ⓐ 2 games

Ⓑ 6 games

Ⓒ 10 games

Ⓓ 24 games

2. There are 11 children on the playground. 8 are on the swings. The rest are playing catch. Which number sentence shows how many children are playing catch?

Ⓐ $11 + 8 = 19$

Ⓑ $11 - 8 = 3$

Ⓒ $8 + 8 = 16$

Ⓓ $11 - 4 = 7$

Show What You Know

3. Matt bakes 15 muffins. He gives some to his mother. He gives 3 fewer muffins to his brother. He has 6 muffins left. How many muffins did he give to his mother?

_____ muffins

Explain how you found the answer.

4. The highest temperature on Monday was 47°. The temperature went up 2° each day. On what day will the highest temperature be 53°?

_____

Explain how you found the answer.

Name _____ Date _____

Chapter 1

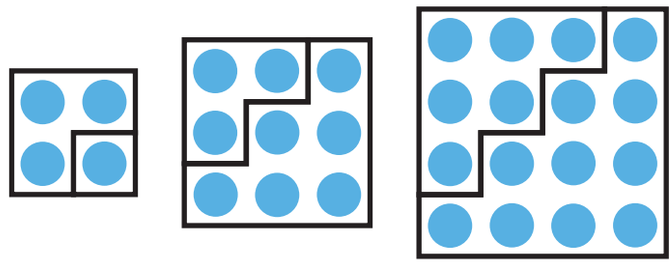
Review/Assessment

NCTM Standards 1, 2, 3, 6, 7, 8, 9, 10

1. Continue the pattern. Lesson 1

_____

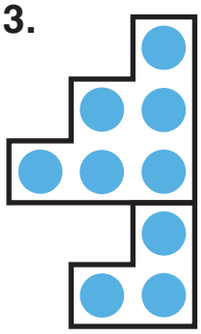
2. How many dots are in each figure? Lesson 2



_____ _____ _____

Write number sentences to go with each figure. Lesson 3

3.

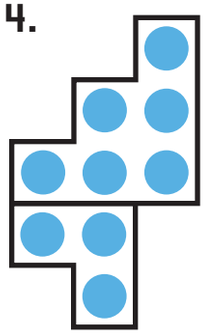


_____

_____

_____

4.



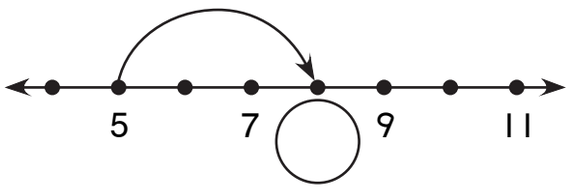
_____

_____

_____

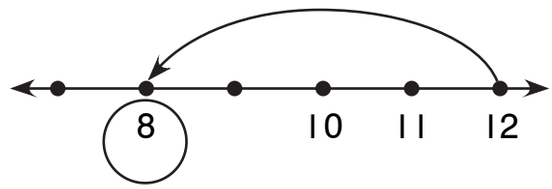
What number sentence is shown by the jump? Lesson 4

5.



_____

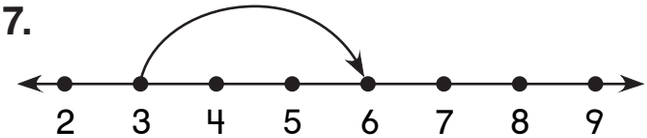
6.



_____

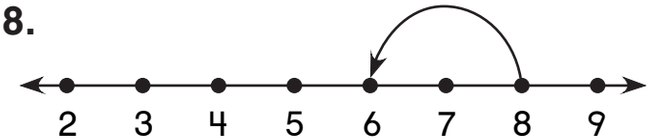
What number is missing? Lesson 5

7.



3 + 3 = ☐

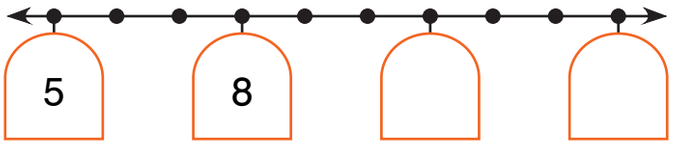
8.



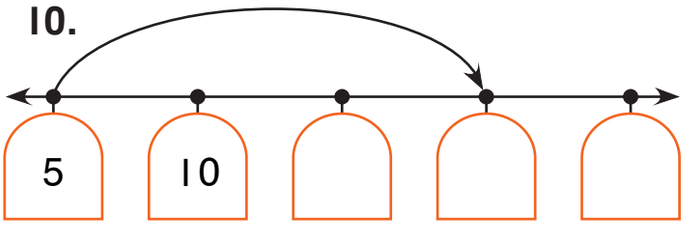
☐ − 2 = 6

What is missing? Lessons 6, 7

9.



10.

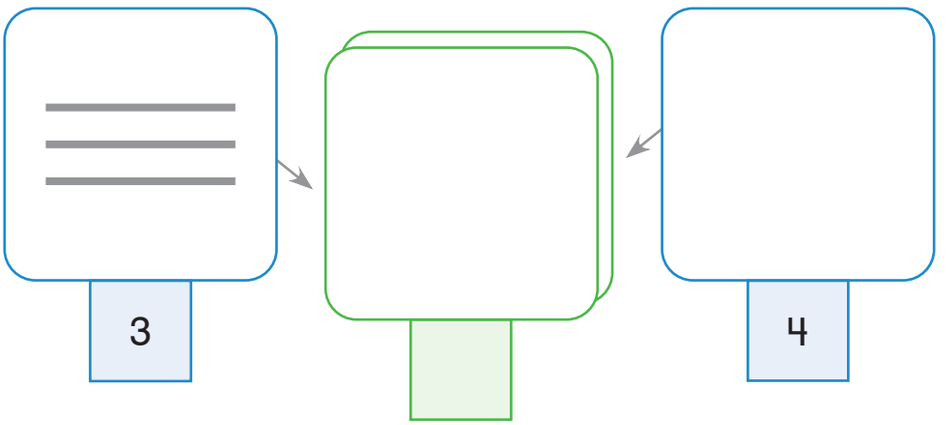


5 + ☐ = ☐

11. Circle pairs with a sum of 10. Lesson 9

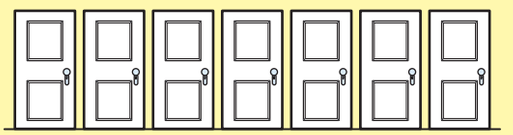
8 2	6 5	1 9	3 7	5 5	4 7	3 6	2 8	9 1	5 5

12. How many intersections are there? Lesson 10



Problem Solving Lesson 12

13. At Mt. Way School, there are 7 doors on one side of the hallway. Starting with the first door, every other one is painted blue. How many blue doors are there?



_____ blue doors