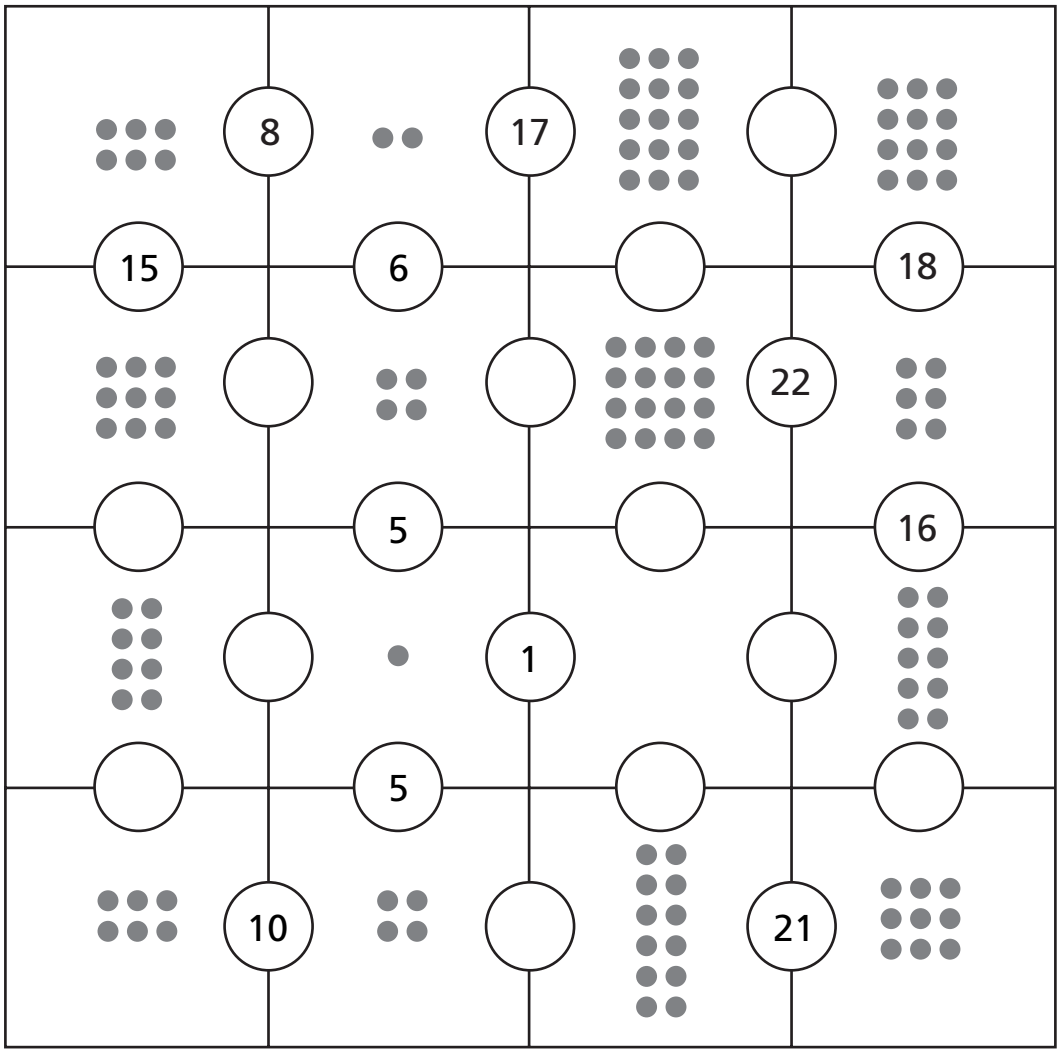
Name _____ Date _____

Practice
Lesson 1

Recognizing Rectangular Arrays

1 In each circle, write the total number of dots in the two boxes touching the circle.



Test Prep

2 Which does **NOT** equal **321?**

A. 2 hundreds, 2 tens, 11 ones
B. 2 hundreds, 12 tens, 1 one
C. 3 hundreds, 2 tens, 1 one
D. 3 hundreds, 1 ten, 11 ones

3 What is the missing number?

23, _____, 43, 53

A. 63
B. 33
C. 24
D. 13

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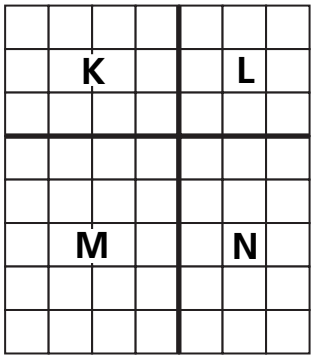
Practice
Lesson 2

Arrays of Square Tiles

1. Color all "K" squares red, all "L" squares blue, all "M" squares green, and all "N" squares yellow.



K = 12 **L** = _____

M = _____ **N** = _____

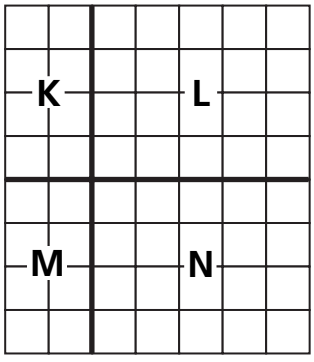
K + **L** = _____

M + **N** = _____

K + **M** = _____

L + **N** = _____

K + **L** + **M** + **N** = _____



K = 8 **L** = _____

M = _____ **N** = _____

K + **L** = _____

M + **N** = _____

K + **M** = _____

L + **N** = _____

K + **L** + **M** + **N** = _____

Test Prep

2. (3 + 4) + 5 = 3 + (■ + 5)

What number goes in the box?

A. 3 **C.** 5

B. 4 **D.** 6

3. Matt bought a drink for 45¢ and an apple for 27¢. How much money did Matt spend?

A. 18¢ **C.** 62¢

B. 22¢ **D.** 72¢

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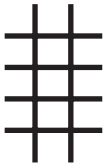
Practice
Lesson 3

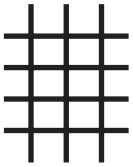
Intersecting Lines

1 Use the maps to complete the table.

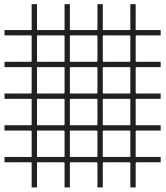
A



B



C



	A	B	C
Horizontal —			
Vertical |			
Intersections +			

2 Use the information in the table to draw the maps and fill in the missing numbers in the table.

	A	B	C
Horizontal —	2		3
Vertical |		5	
Intersections +	6	15	9

A

B

C

Test Prep

3 There are 50 empty milk cartons in the art room, and 32 students. If each student takes one milk carton to make a bird feeder, how many cartons will be left over?

A. 9
B. 18
C. 28
D. 82

4 Manny has 2 dimes and 1 penny in his pocket. How many more pennies does he need to make 25¢?

A. 1 more penny
B. 2 more pennies
C. 3 more pennies
D. 4 more pennies

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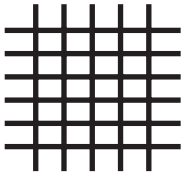
Practice
Lesson 4

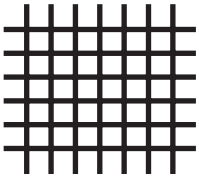
Visualizing Intersections

1 Use the maps to complete the table.

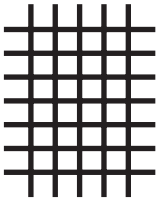
A



B



C



	A	B	C
Horizontal —			
Vertical |			
Intersections +			

2 Use the information in the table to draw the maps and fill in the missing numbers in the table.

	A	B	C
Horizontal —	4		9
Vertical |		3	
Intersections +	12	18	27

A

B

C

Test Prep

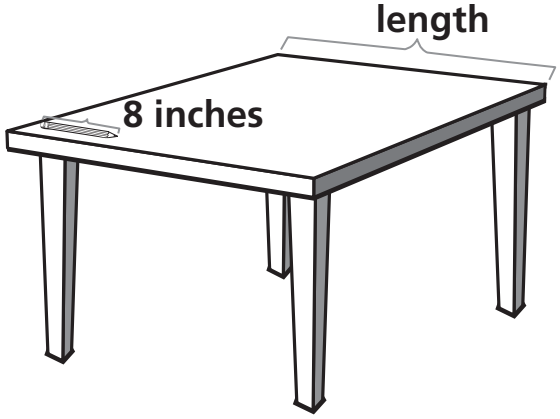
3 Kimberly put a pencil on her desk. The pencil was 8 inches long. About how long is the length of Kimberly's desk?

A. 8 inches

B. 16 inches

C. 24 inches

D. 32 inches



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Practice
Lesson 5

Finding the Number of Intersections

1. Draw 7 lines so that 3 are horizontal and the rest are vertical. How many intersections are there?

_____ intersections

2. Draw 4 vertical lines. Then draw horizontal lines so that there are 20 intersections. How many horizontal lines are there?

_____ horizontal lines

3. Draw 10 lines so there are as few intersections as possible. How many intersections are there?

_____ intersections

4. Draw 10 lines so there are as many intersections as possible. How many intersections are there?

_____ intersections

5. Draw 6 lines so that 2 are horizontal and the rest are vertical. How many intersections are there?

_____ intersections

6. Draw 2 horizontal lines. Then draw vertical lines so there are 3 more vertical lines than horizonal lines. How many intersections are there?

_____ intersections

Test Prep

7. Which of the following is correct?

A. $18 + 7 > 6,\ 12 - 9 > 2$

B. $18 + 7 > 6,\ 12 - 9 < 2$

C. $18 + 7 = 6,\ 12 - 9 = 2$

D. $18 + 7 < 6,\ 12 - 9 > 2$

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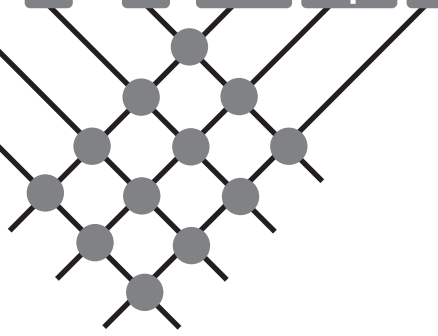
Name _____ Date _____

Practice
Lesson 6

Pairing Objects

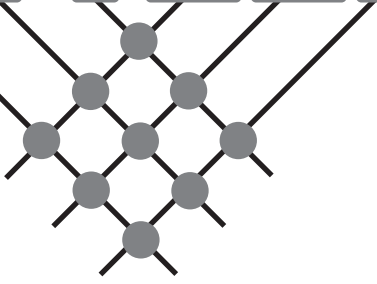
List all the pairs.

1 t s l c ame ap ake



tame	tap	take
same		

2 f p w ill it ink



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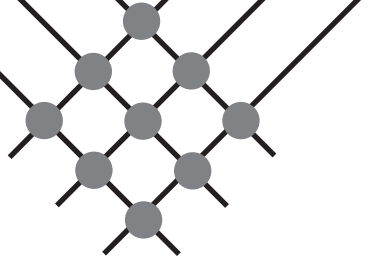

slick		

4 How many combinations? 1 _____ 2 _____ 3 9

Test Prep

5 Small stickers cost 5¢, and large stickers cost 8¢. How much would you have to pay for 3 small stickers and 2 large ones?

A. 41¢ **C.** 34¢
B. 39¢ **D.** 31¢

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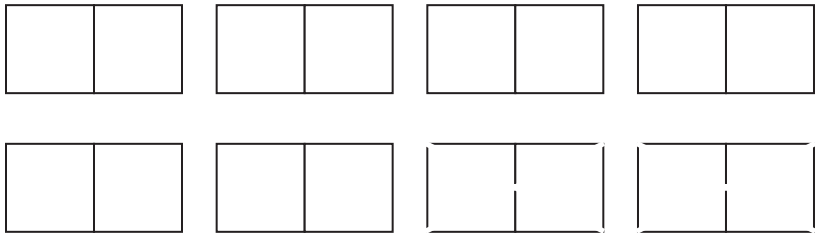
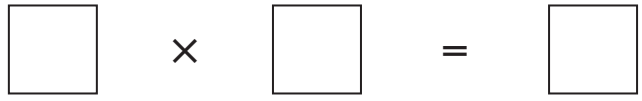
Practice
Lesson 7

Listing Combinations

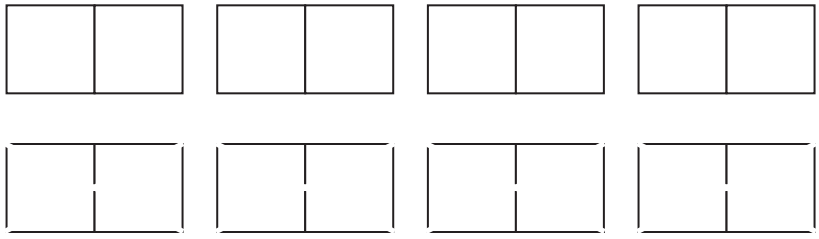
1. List all the two-digit numbers that have a tens digit from this list: **1, 2, 3** and a ones digit from this list: **8, 9**

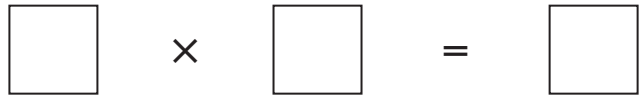




choices for tens digit		choices for ones digit		number of two-digit numbers
☐	×	☐	=	☐

2. List all the two-digit numbers that have a tens digit from this list: **1, 2, 3, 8** and a ones digit from this list: **9**





choices for tens digit		choices for ones digit		number of two-digit numbers
☐	×	☐	=	☐

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Test Prep

3. Which is the best estimate for the sum of **284, 51,** and **712?**

A. 1,000
B. 1,050
C. 1,100
D. 1,500

Name _____ Date _____

Practice
Lesson 8

Using Multiplication

1 Complete the multiplication table.

×	0	1	2	3	4	5
0						
1				3		
2	0			6		
3		3				
4				12		
5						
6				18		
7	0		14			35
8						
9			18			

Test Prep

2 Luke has 4 coins in his pocket. If the coins total 35¢, what coins does he have? Explain how you found your answer.

_____

_____

_____

3 Marissa has 16 coins in her pocket. What is the least amount of money she could have? Explain.

_____

_____

_____

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Practice
Lesson 9

Writing Number Sentences for Intersecting Lines

1. Draw lines to connect the pairs of facts with the same product.

1×6 •	• 1×8
9×4 •	• 8×2
4×4 •	• 6×4
3×6 •	• 2×9
8×3 •	• 4×9
2×4 •	• 4×3
6×2 •	• 2×3

Test Prep

2. Sam needs to buy a ruler that costs 38¢ and a pencil that costs 45¢. Sam has 75¢. Does he have enough money to buy both items? Explain.

_____

_____

_____

3. If $3 \times 3 = 9$, then what does $2 \times 3 \times 3$ equal?

A. 9

B. 8

C. 18

D. 27

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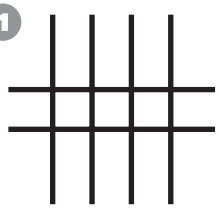
Practice
Lesson 10

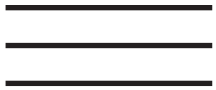
Breaking Products into Factors

Complete the map to match the number sentence. Fill in the missing numbers.

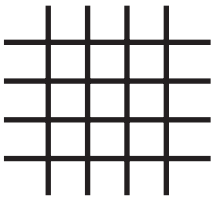
1. 
   $2 \times 4 = \boxed{8}$

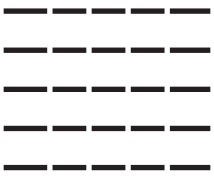
2.
   $3 \times \square = 9$

3.
   $\square \times 2 = 10$

4. 
   $3 \times \square = 0$

5.
   $\square \times 1 = 6$

6. 
   $4 \times 4 = \square$

7. 
   $5 \times \square = 20$

8. $2 \times \square = 2$

9. $0 \times 7 = \square$

10. $3 \times 4 = \square$

11. $\square \times 2 = 6$

12. $\square \times \square = 1$

Test Prep

13. Ann has 4 erasers, and Dan has 10. What needs to happen so that both of them have the same number of erasers?

    _____

14. Which number has an 8 in the thousands place?

    A. 18,540 **C.** 54,810

    B. 41,085 **D.** 85,104

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Practice
Lesson 11

Separating Arrays

Fill in the missing numbers.

1 $3 \times 7 = \square$	2 $\square \times 7 = 42$	3 $9 \times \square = 72$	4 $6 \times \square = 36$
5 $12 = \square \times 3$	6 $\square = 15 \times 1$	7 $8 \times 7 = \square$	8 $3 \times 5 = \square$
9 $\square = 4 \times 4$	10 $2 \times 5 = \square$	11 $4 \times \square = 8$	12 $\square \times 3 = 9$
13 $\square = 6 \times 2$	14 $7 \times 9 = \square$	15 $20 = \square \times 10$	16 $2 \times \square = 18$
17 $\square \times 7 = 49$		18 $6 \times \square = 30$	

Test Prep

19 Five friends plan to share the cost of a gift equally. The gift costs $24.45. Which is the best estimate of the amount each friend will have to pay?

A. $4
B. $5
C. $6
D. $10

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