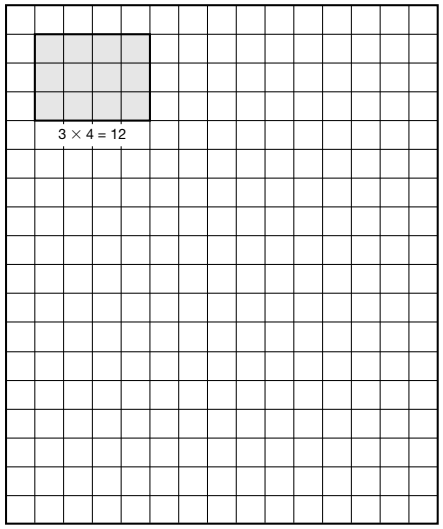
Name _____ Date _____

Exploring Factors Using Tiles

1. Diana drew the rectangle below to show 3 × 4 = 12. Use 12 tiles to make as many rectangles as you can. Shade them in and write a multiplication sentence by each rectangle.



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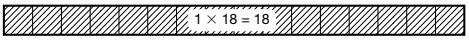
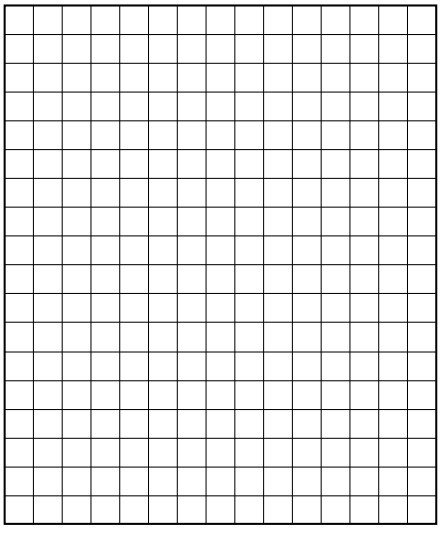
Name _____ Date _____

2. Darius knows he can make a rectangle like the one below to show 1 × 18. Use 18 tiles to make as many rectangles as you can on the grid. Write a number sentence by each rectangle.





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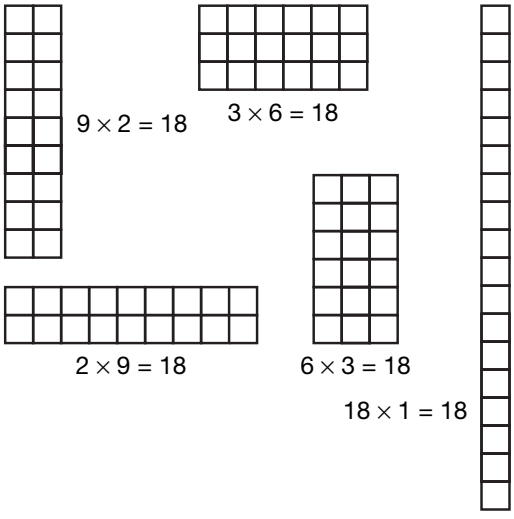
Student Activity Book

Exploring Factors Using Tiles (SAB pp. 269–270) Questions 1–2

1.* See Figure 3 Lesson.

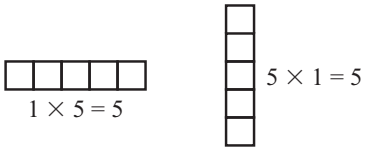
2.

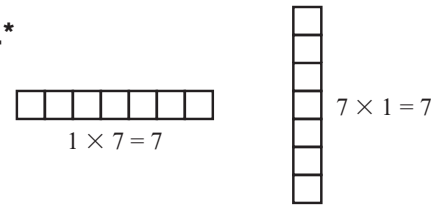


***Answers and/or discussion are included in the lesson.**

Finding More Rectangles (SAB pp. 277–278)

Questions 1–6

1.* 

2.* 

3.* They only have 1 row or 1 column.

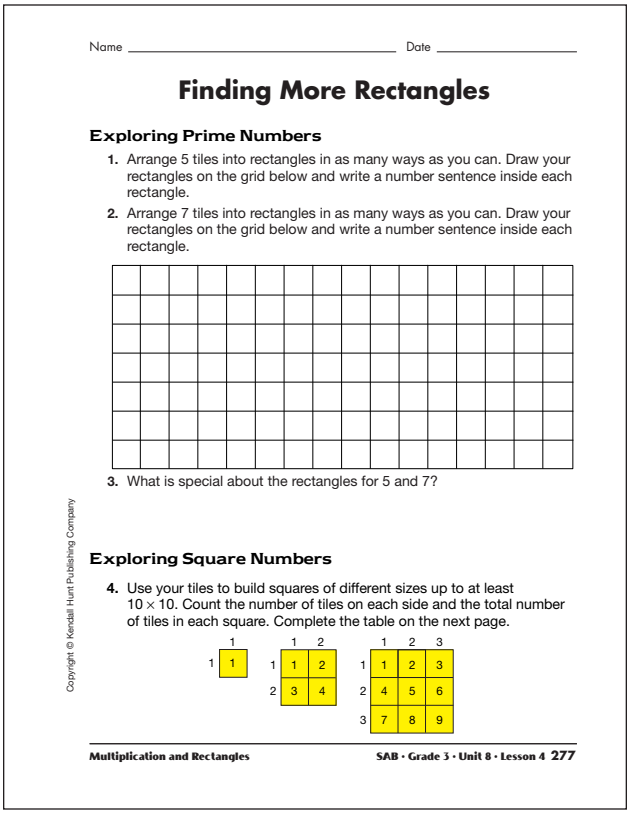
4.

Number on a Side	Number in Square	Multiplication Facts
1	1	1 × 1 = 1
2	4	2 × 2 = 4
3	9	3 × 3 = 9
4	16	4 × 4 = 16
5	25	5 × 5 = 25
6	36	6 × 6 = 36
7	49	7 × 7 = 49
8	64	8 × 8 = 64
9	81	9 × 9 = 81
10	100	10 × 10 = 100

5. Check multiplication tables.

6. A.* Both factors are the same.

B.* They form a diagonal.



Name _____ Date _____

Finding More Rectangles

Exploring Prime Numbers

1. Arrange 5 tiles into rectangles in as many ways as you can. Draw your rectangles on the grid below and write a number sentence inside each rectangle.
2. Arrange 7 tiles into rectangles in as many ways as you can. Draw your rectangles on the grid below and write a number sentence inside each rectangle.

3. What is special about the rectangles for 5 and 7?

Exploring Square Numbers

4. Use your tiles to build squares of different sizes up to at least 10 × 10. Count the number of tiles on each side and the total number of tiles in each square. Complete the table on the next page.

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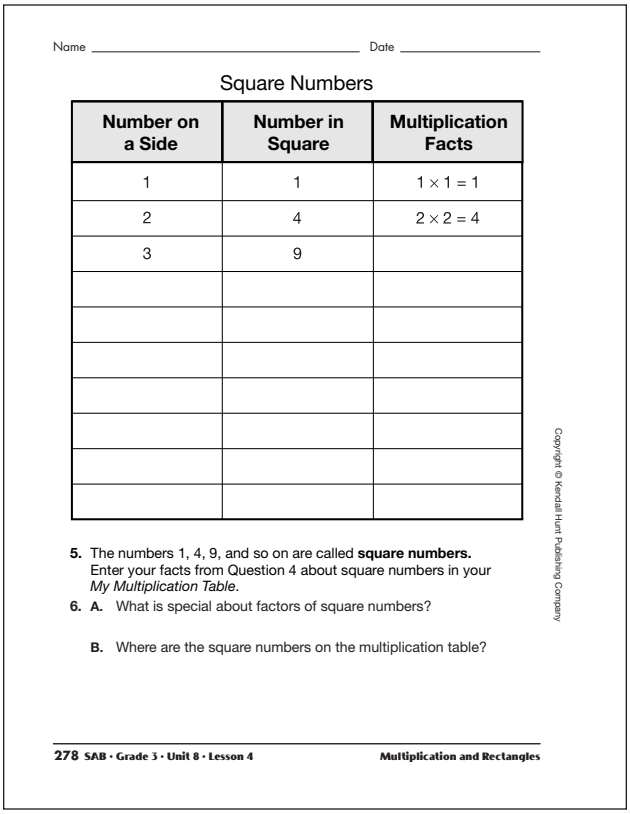

Name _____ Date _____

Square Numbers

Number on a Side	Number in Square	Multiplication Facts
1	1	1 × 1 = 1
2	4	2 × 2 = 4
3	9	

5. The numbers 1, 4, 9, and so on are called **square numbers.** Enter your facts from Question 4 about square numbers in your *My Multiplication Table*.
6. **A.** What is special about factors of square numbers?

B. Where are the square numbers on the multiplication table?

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***Answers and/or discussion are included in the lesson.**