Name _____   Date _____

1. a. Write the products into the chart as fast as you can.

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

b. Color the rows and columns with even factors yellow.

c. What do you notice about the factors and products that are left unshaded?

Lesson 17: Identify patterns in multiplication and division facts using the multiplication table.

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d. Complete the chart by filling in each blank and writing an example for each rule.

Rule	Example
odd times odd equals _____	
even times even equals _____	
even times odd equals _____	

e. Explain how 7 × 6 = (5 × 6) + (2 × 6) is shown in the table.

f. Use what you know to find the product of 4 × 16 or 8 fours + 8 fours.

2. Today in class, we found that $n × n$ is the sum of the first n odd numbers. Use this pattern to find the value of n for each equation below. The first is done for you.

a. 1 + 3 + 5 = $n × n$

9 = 3 × 3

b. 1 + 3 + 5 + 7 = $n × n$

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c. $1 + 3 + 5 + 7 + 9 + 11 = n \times n$

d. $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 = n \times n$

e. $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 = n \times n$

Lesson 17:   Identify patterns in multiplication and division facts using the multiplication table.

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