Name _____ Date _____

Multiply with 9

CA Standards
KEY NS 2.2, AF 1.2

You can use patterns to find a product when 9 is a factor.

Look at each 9s fact in the table. Notice that the tens digit of each product is 1 less than the number multiplied by 9.

Factors	Product	
1 × 9 =	9	1 − 1 = 0
2 × 9 =	**18**	2 − 1 = 1
3 × 9 =	**27**	3 − 1 = 2
4 × 9 =	**36**	4 − 1 = 3
5 × 9 =	**45**	5 − 1 = 4

Look at each product. The ones digit is the difference of 9 and the tens digit.

Factors	Product	
1 × 9 =	9	9 − 0 = 9
2 × 9 =	**18**	9 − 1 = 8
3 × 9 =	**27**	9 − 2 = 7
4 × 9 =	**36**	9 − 3 = 6
5 × 9 =	**45**	9 − 4 = 5

Antwon has 6 bags of marbles. There are 9 marbles in each bag. How many marbles does Antwon have in all?

Use a pattern to find the product of 6 × 9.

Think: 1 less than 6 is 5, so the tens digit in the product is 5.

6 × 9 = 5_

9 − 5 = 4, so the ones digit in the product is 4.

6 × 9 = 54

Solution: Antwon had 54 marbles.

Multiply.

1. $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$ **2.** $\begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$ **3.** $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$ **4.** $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$ **5.** $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$ **6.** $\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$

7. 9 × 5 = _____ **8.** 2 × 9 = _____ **9.** 4 × 9 = _____

Writing Math Look at the products in the table above. What do you notice about the sum of the digits?