G3-M3-Lesson 13

1. Complete to make true statements.

    a. 10 more than 0 is ___10___ ,

        1 less is ___9___ .

        $1 \times 9 =$ ___9___

    > These statements show a simplifying strategy for skip-counting by nine. It's a pattern of adding 10 and then subtracting 1.

    b. 10 more than 9 is ___19___ ,

        1 less is ___18___ .

        $2 \times 9 =$ ___18___

    > I notice another pattern! I compare the digits in the ones and tens places of the multiples. I can see that from one multiple to the next, the digit in the tens place increases by 1, and the digit in the ones place decreases by 1.

    c. 10 more than 18 is ___28___ ,

        1 less is ___27___ .

        $3 \times 9 =$ ___27___

2.

    a. Analyze the skip-counting strategy in Problem 1. What is the pattern?

        The pattern is add 10 and then subtract 1.

        To get a nines fact, you add 10 and then subtract 1.

    b. Use the pattern to find the next 2 facts. Show your work.

$4 \times 9 =$	$27 + 10 = 37$	$5 \times 9 =$	$36 + 10 = 46$
	$37 - 1 = 36$		$46 - 1 = 45$
	$4 \times 9 = 36$		$5 \times 9 = 45$

    > I can check my answers by adding the digits of each multiple. I know that multiples of 9 I've learned have a sum of digits equal to 9. If the sum isn't equal to 9, I've made a mistake. I know 36 is correct because $3 + 6 = 9$. I know 45 is correct because $4 + 5 = 9$.

Lesson 13:   Identify and use arithmetic patterns to multiply.   **EUREKA MATH**