MM: Multiplication Patterns

When you multiply a number by ten (10) or hundred (100) or thousand (1000), you will end up having the same number but with different place value.

When we multiply 9 by 10, you're not actually adding a zero; you're moving the digit one place to the left and then, since you can't leave a space, putting a zero to mark the 'units' place.

$7 \times 8 = 56$; what about 7×80?

When you compare you notice that 7 is multiplied by 80 instead of 8, so we need to move 56 one place value to the left and add a zero

$7 \times 80 = 560$

Examples:

A- Use mental math to complete the pattern.

1) 8 x 4 = 32
8 x 40 = **320**
8 x 400 = **3,200**
8 x 4,000 = **32,000**

2) 5 x 9 = 45
5 x **90** = 450
5 x 900 = **4,500**
5 x **9,000** = 45,000

B- Use mental math to find the product.

3) 5 x 800
4,000

4) 3 x 4,000
12,000

5) 9 x 200
1,800