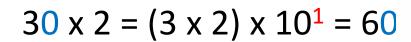


Algebra – Multiplication Patterns

Hmmm. I see some patterns here. Do you?

$$3 \times 2 = 6$$



$$300 \times 2 = (3 \times 2) \times 10^2 = 600$$

$$3,000 \times 2 = (3 \times 2) \times 10^3 = 6,000$$

$$30,000 \times 2 = (3 \times 2) \times 10^4 = 60,000$$



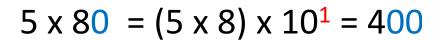
As the exponent increases, the number of zeros in the product increases.



Algebra – Multiplication Patterns

Hmmm. I see some patterns here. Do you?

$$5 \times 8 = 40$$



$$5 \times 800 = (5 \times 8) \times 10^2 = 4,000$$

$$5 \times 8,000 = (5 \times 8) \times 10^3 = 40,000$$

$$50 \times 8,000 = (5 \times 8) \times 10^4 = 400,000$$



Notice the additional zeros in the products.
Why are they there?



Practice Makes Progress:

$$9 \times 5 = 45$$
 Always start with the basic multiplication fact!

$$(9 \times 5) \times 10^{1} = 45 \times 10 = 450$$

$$(9 \times 5) \times 10^2 = 45 \times 100 = 4,500$$

$$(9 \times 5) \times 10^3 = 45 \times 1,000 = 45,000$$



Once you begin to recognize these patterns, you can begin to use **MENTAL Math** to solve problems very quickly!

$$8 \times 8 \times 10^{4} =$$

First do the basic fact of 8 x 8 in your head. Got it?

Next, look at the exponent. What is it?

Then place that many zeros after the basic fact product.

Your answer is 640,000!!



Your tasks:

- 1. Complete Google Classroom assignments
- 2. Complete Think Central assignments
- 3. Watch videos posted on the website
- 4. Complete IXL Skills for the week

You have a lot to do - Don't waste time!