

Name: _____

Date: _____

Multiplication and the Associative Property

One of the multiplication properties is associative, which means you can group the factors in a multiplication equation differently and still get the same product.

$$A \times (B \times C) = (A \times B) \times C$$

Find the missing factor according to the associative property.

1. $5 \times (4 \times 3) = (5 \times 4) \times \boxed{3}$

2. $7 \times (3 \times 6) = (7 \times 3) \times \boxed{6}$

3. $(30 \times 5) \times 12 = (30 \times 12) \times \boxed{5}$



Find the product of these numbers.

4. $6 \times (3 \times 4) = \boxed{72}$ $(6 \times 3) \times 4 = \boxed{72}$

5. $10 \times (2 \times 5) = 10 \times \boxed{10} = \boxed{100}$

6. $(10 \times 2) \times 5 = \boxed{50} \times 2 = \boxed{100}$

Think About It:

7. When you group the factors differently do you get a different product? Explain.

No

8. How could you change two out of the three factors in an equation and still have the same product?

Answers will vary, but explanations might show an example like this:

$(6 \times 3) \times 4 = 72$ $(2 \times 9) \times 4 = 72$ Notice $6 \times 3 = 18$ and $2 \times 9 = 18$. So this is an example

of how two out of the three factors have changed but both equations yield the same product!