Name: _____   Date: _____

Break it Up: Distributive Property 1

The **distributive property** is a tool to make multiplication with larger numbers easier.

To use the distributive property:
Break one factor into two addends,
multiply both addends by the other
factor, and add together both products.

Break up
the bigger
number
into two
addends

16 x 5

(10 + 6) x 5

(10 x 5) + (6 x 5)

50 + 30 = 80

16 x 5 = 80

Directions: *Fill in the blanks to solve each problem below using the distributive property.*

1. 8 x 9

    8 x (3 + 6)

    (8 x _____) + (8 x _____)

    _____ + _____

    8 x 9 = _____

2. 12 x 3

    (_____ + 2) x 3

    (_____ x 3) + (2 x 3)

    _____ + _____

    12 x 3 = _____

3. 4 x 13

    4 x (_____ + 3)

    (4 x _____) + (4 x _____)

    _____ + _____

    4 x 13 = _____

4. 14 x 6

    (10 + _____) x 6

    (_____ x 6) + (_____ x 6)

    _____ + _____

    14 x 6 = _____

It's Associative!

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

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

Find the missing number according to the associative property.

$$4 \times (3 \times 2) = (4 \times 3) \times \boxed{}$$

$$6 \times (2 \times 5) = (6 \times 2) \times \boxed{}$$

$$(20 \times 5) \times 11 = 20 \times (11 \times \boxed{})$$

Find the product of these numbers.

$$7 \times (2 \times 1) = \boxed{} \qquad 2 \times (7 \times 1) = \boxed{}$$

$$10 \times (3 \times 4) = 10 \times \boxed{} = \boxed{}$$

$$(10 \times 3) \times 4 = \boxed{} \times 4 = \boxed{}$$