

## Lesson 2.1 Multiplying and the Distributive Property

The **distributive property** combines multiplication with addition or subtraction. The property states:

$$a \times (b + c) = (a \times b) + (a \times c)$$

$$a \times (b - c) = (a \times b) - (a \times c)$$

$$3 \times (6 + 4) = (3 \times 6) + (3 \times 4)$$

$$3 \times (10) = (18) + (12)$$

$$30 = 30$$

Rewrite each expression using the distributive property.

**a**

1.  $(a \times 4) + (a \times 3) =$

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2.  $4 \times (a + b) =$

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3.  $(d \times 5) - (d \times 2) =$

\_\_\_\_\_

4.  $d \times (8 - h) =$

\_\_\_\_\_

5.  $r \times (16 + s) =$

\_\_\_\_\_

6.  $(8 \times a) + (b \times 8) =$

\_\_\_\_\_

7.  $(6 \times 12) - (w \times 6) =$

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8.  $15 \times (y + 0) =$

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9.  $(a \times 2) + (a \times 3) + (a \times 4) =$

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10.  $(a \times b) + (a \times c) - (a \times d) =$

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**b**

$b \times (6 + 12) =$

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$(3 \times a) + (3 \times b) =$

\_\_\_\_\_

$5 \times (8 + p) =$

\_\_\_\_\_

$12 \times (s - 10) =$

\_\_\_\_\_

$(35 \times t) + (35 \times y) =$

\_\_\_\_\_

$r \times (q - s) =$

\_\_\_\_\_

$p \times (15 + z) =$

\_\_\_\_\_

$(d \times d) + (d \times b) =$

\_\_\_\_\_

$p \times (a + b + 4) =$

\_\_\_\_\_

$8 \times (a + b + c) =$

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