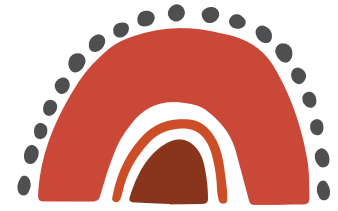


## Properties of Multiplication

# Distributive



One of the multiplication properties is **distributive**, which means you can multiply a sum or difference by multiplying each number separately and then adding or subtracting the products.

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

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

### Part I: Find the product.

a.  $7 \times (5 + 2) = 7 \times ( \underline{7} ) = \underline{49}$

$$(7 \times 5) + (7 \times 2) = ( \underline{35} ) + ( \underline{14} ) = \underline{49}$$

b.  $3 \times (8 - 4) = 3 \times ( \underline{4} ) = \underline{12}$

$$(3 \times 8) - (3 \times 4) = ( \underline{24} ) - ( \underline{12} ) = \underline{12}$$

### Part II: Rewrite the equations.

**Example:**  $5 \times (6 + 1) = (5 \times 6) + (5 \times 1)$

$$= 30 + 5$$

$$= 35$$

a.  $8 \times (10 + 2) = (8 \times 10) + (8 \times 2)$

$$= 80 + 16$$

$$= 96$$

b.  $9 \times (9 - 3) = (9 \times 9) - (9 \times 3)$

$$= 81 - 27$$

$$= 54$$

c.  $4 \times (9 - 2) = (4 \times 9) - (4 \times 2)$

$$= 36 - 8$$

$$= 28$$