

Properties of Operations

Math rules that help us move, group, and rewrite numbers.

Commutative

Change the order in addition or multiplication.

$$4 + 9 = 9 + 4$$

$$3 \cdot 7 = 7 \cdot 3$$

Associative

Change the grouping in addition or multiplication.

$$(2 + 5) + 8$$

$$= 2 + (5 + 8)$$

Identity

Add 0 or multiply by 1. The number stays the same.

$$12 + 0 = 12$$

$$12 \cdot 1 = 12$$

Distributive

Multiply the outside number by every term inside.

$$5(x + 3)$$

$$5x + 15$$