

# MULTIPLICATION PROPERTY

## DISTRIBUTIVE

Multiplying a sum by a number is the same as multiplying each addend by the number and then adding the products.

$$(9 \times 5) = 45$$

is the same as

$$(4 \times 5) + (5 \times 5) = 45$$

# MULTIPLICATION PROPERTY

## ASSOCIATIVE

Changing the grouping of the factors does not change the product.

$$(2 \times 3) \times 4 = 24$$

is the same as

$$2 \times (3 \times 4) = 24$$

# MULTIPLICATION PROPERTY

## COMMUTATIVE

Changing the order of the factors does not change the product.

$$2 \times 3 = 6$$

is the same as

$$3 \times 2 = 6$$

# MULTIPLICATION PROPERTY

## IDENTITY

Multiplying a factor by one equals the other factor.

$$1 \times 2 = 2$$

$$1 \times 3 = 3$$

$$1 \times 10 = 10$$

$$1 \times 100 = 100$$

# MULTIPLICATION PROPERTY

## ZERO

Multiplying a factor by zero equals zero.

$$0 \times 2 = 0$$

$$0 \times 3 = 0$$

$$0 \times 10 = 0$$

$$0 \times 100 = 0$$