

COMMUTATIVE PROPERTY

CHANGING THE ORDER OF ADDENDS
OR FACTORS DOES NOT CHANGE
THE SUM OR PRODUCT.

$$a * b = b * a$$

$$a + b = b + a$$

ASSOCIATIVE PROPERTY

THE ORDER IN WHICH NUMBERS
ARE GROUPED DOES NOT CHANGE
THE SUM OR PRODUCT.

$$a * (b * c) = (a * b) * c$$

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

DISTRIBUTIVE PROPERTY

THE PRODUCT OF A NUMBER AND A SUM IS EQUAL TO THE SUM OF THE PRODUCTS OF THE ADDENDS AND THE NUMBER.

$$a * (b + c) = (a * b) + (a * c)$$

ADDITIVE IDENTITY

THE ADDITIVE IDENTITY IS ZERO.
IF YOU ADD ZERO TO AN ADDEND THE
SUM WILL EQUAL THE ADDEND.

$$a + 0 = a$$

MULTIPLICATIVE IDENTITY

THE MULTIPLICATIVE IDENTITY IS 1.
IF YOU MULTIPLY A FACTOR BY ONE
THE PRODUCT WILL EQUAL THE
FACTOR.

$$b * 1 = b$$