

ADDITION PROPERTY OF
EQUALITY

SUBTRACTION PROPERTY
OF EQUALITY

MULTIPLICATION
PROPERTY OF EQUALITY

DIVISION PROPERTY
OF EQUALITY

WORDS

ADDING THE SAME NUMBER TO EACH SIDE OF AN EQUATION

ALGEBRA

~~a=b~~
 $a = b$
then $a + c = b + c$

EXAMPLE:

$$x - 3 = 2$$
$$x - 3 + 3 = 2 + 3$$

WORD

SUBTRACTING THE SAME NUMBER FROM EACH SIDE OF AN EQUATION

ALGEBRA

$a = b$ then
 $a - c = b - c$

EXAMPLE

$$x + 3 = 2$$
$$x + 3 - 3 = 2 - 3$$

WORDS

MULTIPLYING EACH SIDE OF AN EQUATION BY THE SAME NUMBER

$a = b$ then

$$a \cdot c = b \cdot c$$

$$\frac{x}{3} = 2$$

$$\frac{x}{3} \cdot 3 = 2 \cdot 3$$

DIVIDING EACH SIDE OF AN EQUATION

BY THE SAME NUMBER

$c \neq 0$ $a = b$ then

$$\frac{a}{c} = \frac{b}{c}$$

$$5x = 20$$

$$\frac{5x}{5} = \frac{20}{5}$$