

Solving Two-Step Equations

Name _____

Date _____ Period _____

Addition Property of Equality

If $a = b$, then $a + c = b + c$

Subtraction Property of Equality

If $a = b$, then $a - c = b - c$

Addition and Subtraction are Inverse Operations

Addition and Subtraction "undo" each other.

Multiplication Property of Equality

If $a = b$, then $a \cdot c = b \cdot c$

Division Property of Equality

If $a = b$, then $a \div c = b \div c$

Multiplication and Division are Inverse Operations

Multiplication and Division "undo" each other.

Left Side = Right Side

Any operation done to the left side...

...must be done to the left side

...must be done to the right side

Any operation done to the right side...

Always "undo" addition/subtraction before multiplication/division

Solve the following equations for x

$$2x + 5 = 23$$

$$4x - 6 = -30$$

$$-x + 8 = 12$$

Always “undo” addition/subtraction before multiplication/division

Solve the following equations for x

$$\frac{x}{2} - 4 = 10$$

$$\frac{x}{-3} + 8 = 4$$

$$\frac{x}{4} - 5 = -11$$

Always “undo” addition/subtraction before multiplication/division

Solve the following equations for x

$$7 = 3x + 6$$

$$14 = 4 + \frac{x}{2}$$

$$12 = -x - 3$$

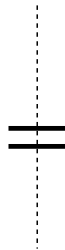
Always “undo” addition/subtraction before multiplication/division

Addition and Subtraction “undo” each other.

Multiplication and Division “undo” each other.

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...must be done to the left side



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Any operation done to the right side...

Always “undo” addition/subtraction before multiplication/division