

Chapter 4-3 Addition and Subtraction Equations

Objective: solve one step equations using addition and subtraction.

Subtraction Property of Equality : allows you to subtract the same value from both sides of the equation to isolate the variable.

$$P + 6 = 9$$

Subtract 6 from both sides of the equation



$$P + 6 = 9$$

We see addition so we subtract to get our answer

Do the opposite math of what you see

* The Goal is to get the variable by itself!*

$$P + 6 = 9$$

$$-6 = -6$$

$$P + 0 = 3 \quad P = 3$$

OBL ✓ $3 + 6 = 9$

"What you do to one side of the equation You must do to the other"

The Addition Property of Equality : states you can add the same value to both sides of the equation to solve for the variable.

Do the opposite (math) of you see!

$$\begin{array}{r} y - 9 = -2 \\ +9 \quad +9 \\ \hline y + 0 = 7 \end{array}$$

Add 9 to both sides

Check it
Plug into original equation

$$7 - 9 = -2$$

In Linear form.


$$y - 9 = -2$$

$$y - 9 + 9 = -2 + 9$$

$$y = 7$$

Property of Equality means "what you do to one side you must do to the other."

Examples Do the opposite of
what you see!

$$-3 = n - 4$$


Focus on
the Variable
Side

$$Q + -8 = 12$$

+8 +8

$$20 + -8 = 12$$

solve the Equation
by Plugging In
the variable.

$$150 = x + 325$$

$$-25 = b - 10$$

Answer

Expression

Avoid ADDING
+25

ALWAYS use
the number
next to the
VARIABLE

$$x - 34 = 20$$

$$54 - 34 = 20 \checkmark$$

$$34 = x - 19$$

$$53 = x$$

$$-900 = -365 + x$$