

Lesson 2-4 and 2-5 Solving one step equations

Solving Addition and Subtraction One Step Equations:

- Review the work that we have done so far with the Algebra tiles
- Remember the 2 most common rules
 - If you add something to one side of the equation, you must add the same thing to the other side of the equation
 - If you take away something from one side of the equation, you have to take away the same thing from the other side.
- Practice these rules on these sample problems (use the equation mats)

$x + 2 = 7$

$x - 4 = 2$

$7 + x = 2x - 4$

$4x - 8 = 3x + 5$

Now let's connect the moves with the Algebra tiles to the operations in the Algebra equations.

Inverse Operations:

Definition: _____.

- _____ and _____ are inverse operations
- _____ and _____ are inverse operations

Ex: $5 + 4 - 4 = 5$

$5 \cdot 4 \div 4 = 5$

To solve for a variable you need to get the variable _____ and the numbers on _____ . To do that, you have to use inverse operations.

- Look at the _____ in the equation. Do the _____ of what you see!

Ex: $x + 4 = 38$

- The operation in this equation is Addition (+ 4)

To solve for the variable, you must use subtraction (- 4)

$$\begin{array}{r} x + 4 = 38 \\ - 4 \quad - 4 \\ \hline x = 34 \end{array}$$

- Subtract 4 from both sides to keep the equation balanced.

Solve using inverse operations:

$d + 5 = 53$

$n + 4.5 = 10.8$

$x - 3 = 7$

$k - 56 = 107$