When we are asked to solve an equation we are trying to determine what value of x makes the mathematical statement true.

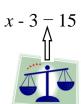
ex.
$$x + 5 = 8$$

If
$$x =$$
____ the statement is true.

To solve equations we want to get the variable term by itself by performing the opposite math operation.

Math Operation	Opposite Math Operation
+	
-	
×	
÷	

For example, when solving



When working with equations we need to keep the equation balanced... Therefore whatever is done to one side needs to be done to the other side as well.

$$x - 3$$
 ____ = 15 ____

Example 2: Solve

a)
$$x + 4 = 70$$

b)
$$25 = 5 + x$$

c)
$$3x = 15$$

d)
$$6y = -48$$

Example 3: Solve

a)
$$\frac{b}{4} = 16$$

b)
$$\frac{y}{2} = -3$$

c)
$$f + \frac{1}{3} = \frac{2}{3}$$

Solving Two Step Equations

Solve: 2x + 5 = 15

Step 1:

Step 2:

Solve: $\frac{2}{5}a = -4$

Step 1:

Step 2:

Example : Solve.

a)
$$-4 = -3x + 2$$

b)
$$8 - 4x = -8$$

c)
$$9 = \frac{3}{4}z$$

d)
$$-\frac{5}{6}x - 5 = 15$$