Solving two-step equations

Apply the same principles to two-step equations as you applied to one-step equations.

example. $3x + 2 = 20$

step 1 – work on the side with the variable – the goal is to isolate the variable

$3x + 2 = 20$

step 2 – Begin to get 'rid' of numbers around the variable

* Inverse operations

$3x + 2 = 20$
$-2 \quad -2$

$3x = 18$

Step 3 – follow the rules for a one-step equation

* Inverse operations

$\frac{3x}{3} = \frac{18}{3}$

$\boxed{x = 6}$

Two-Step equations Cont'd

Those Pesky fractions!

remember, fractions are just another way to represent division, The inverse operation of division is multiplication.

example

$$\frac{x}{3} + 2 = 10$$

$$-2 \quad -2$$

$$3 \cdot \frac{x}{3} = 8 \cdot 3$$

$$x = 24$$

example.

$$5 \cdot \frac{x+3}{5} = 6 \cdot 5$$

$$x + 3 = 30$$

$$-3 \quad -3$$

$$x = 27$$