Warm Up

Solve and check each of the equations below.

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

$-2 = 3 + x$

Solving Two-Step Equations

When we solve equations, we use INVERSE OPERATIONS to move things to the other side, and we do PEMDAS in the reverse order.

Example:

$2x - 4 = 26$

$+4 \quad +4$

$\frac{2x}{2} = \frac{30}{2}$

$x = 15$

Justification:

1. Addition Property of Equality
2. Division Property of Equality

$5x - 4 = 12$

$+4 \quad +4$

$5x = 16$

$\frac{5x}{5} = \frac{16}{5}$

$x = 3.2$

Check:

$5(3.2) - 4 = 12$

$12 = 12$ ✓

$\frac{1}{2}x + 4 = 6$

$-4 \quad -4$

$\frac{1}{2}x = 2$

$\frac{1}{2} \quad \frac{1}{2}$

$x = 4$

2/1/2

4

2/(1/2)

4

$\frac{x}{2}+4=6$

$0.2x+1.2=4.4$

$2x+6=10$

$8x-3=21$

$2x+12=44$

$-6x+3=35$

$9 = \frac{x}{9} + 7$

$3 = 5 + \frac{x}{2}$

Warm Up

Solve and check each of the equations below.

$-3x+7=21$

$-x-6=13$