

3.1: Solving 1-Step Equations

$$x \div a = x \cdot \frac{1}{a}$$

$$x^2 \rightarrow \sqrt{x^2}$$

Goal: isolate the variable
How?: using inverse operations

$$x + 2 = 7$$

$$x + 2 - 2 = 7 - 2$$

$$x = 5$$

$$x + 2 = 7$$

$$-2 \quad -2$$

$$x = 5$$

$$x + \begin{matrix} (-7) \\ +7 \end{matrix} = \begin{matrix} 10 \\ +7 \end{matrix}$$

$$x = 17$$

$$x - \begin{matrix} 4 \\ +4 \end{matrix} = \begin{matrix} 12 \\ +4 \end{matrix}$$

$$x = 16$$

$$x + \cancel{7} = \cancel{3}$$

$\quad -4 \quad -7$

$$x = -4$$

$$\cancel{4}y = \frac{24}{\cancel{4}}$$

$y = 6$

$$\cancel{-3}b = \frac{24}{\cancel{-3}} \quad b = -8$$

$$\frac{-3b}{3} = \frac{24}{3}$$

$$\frac{-1b}{-1} = \frac{8}{-1}$$

$$b = -8$$

$$x \div \cancel{5} = 20$$

$\times 5 \quad \times 5$

$$x = 100$$

$$\cancel{\frac{5}{1}} \left(\frac{x}{\cancel{5}} \right) = 20(5)$$

$$x = 100$$

$$\left(\begin{array}{l} 4 \\ -1 \end{array} \right) \cancel{\frac{x}{4}} = 3 \left(-\frac{4}{1} \right)$$

$$x = -12$$

Pg. 135 1, 2, 6

Pg. 136 9, 13

Homework 3.1

4-28 even, 29, 30, 32-
48 even, 49, 50, 65, 67,
72, 73