

Two-Step Equations

goal: isolate the variable

how: use inverse operations

Steps:

- 1) Eliminate unattached term (constant) using inverse operations to both sides of the equation
- 2) Eliminate attached term (coefficient) using inverse operations to both sides of the equation
- 3) Check your answer by substitution

$$\text{Ex: } -8n - 12 = 20$$

$$\begin{array}{r} \cancel{+12} \mid +12 \\ -8n = 32 \\ \hline -8 \quad -8 \end{array}$$

$$n = -4$$

$$\begin{array}{r} -8(-4) - 12 \\ 32 - 12 \\ 20 \checkmark \end{array}$$

$$\text{Ex: } \frac{h}{2} + 5 = -17$$

$$\begin{array}{r} \cancel{+5} \mid -5 \\ 2 \left(\frac{h}{2} \right) \mid (-22)2 \end{array}$$

$$h = -44$$

$$\begin{array}{r} \frac{-44}{2} + 5 \\ -22 + 5 \\ -17 \checkmark \end{array}$$