

SOLVING TWO STEP EQUATION

- 1) Identify the variable.
- 2) Eliminate the constant. (+/-)
- 3) Isolate the variable. ($\times/\div$)
- 4) Check your work.

$$\begin{array}{r} 3x + 8 = 11 \\ -8 \quad -8 \\ \hline 3x = 3 \\ \frac{3x}{3} = \frac{3}{3} \\ x = 1 \end{array}$$

Check

$$\begin{array}{r} 3 \cdot 1 + 8 = 11 \\ 3 + 8 = 11 \\ 11 = 11 \end{array}$$

$$5x - 10 = 35$$

check

$$\begin{array}{r} 5 \cdot 9 - 10 \\ 45 - 10 \\ \hline 35 \end{array}$$
$$\begin{array}{r} 5x - 10 = 35 \\ +10 \quad +10 \\ \hline 5x = 45 \\ \frac{5x}{5} = \frac{45}{5} \\ x = 9 \end{array}$$

$$5\frac{1}{2}x + 25 = 47$$

check

$$\begin{array}{r} 5\frac{1}{2} \cdot 4 + 25 \\ 22 + 25 \\ \hline 47 \end{array}$$
$$\begin{array}{r} 5\frac{1}{2}x + 25 = 47 \\ -25 \quad -25 \\ \hline 5\frac{1}{2}x = 22 \\ \frac{5\frac{1}{2}x}{5\frac{1}{2}} = \frac{22}{5\frac{1}{2}} \\ x = 4 \end{array}$$

DISTRIBUTIVE PROPERTY

- 1) Identify the variable.
- 2) Apply distributive property.
- 3) Eliminate the constants. (+/-)
- 4) Isolate the variable. ($\times/\div$)
- 5) Check your work.

$$\begin{aligned}5(x+3) &= 27.8 \\5x+15 &= 27.8 \\ \underline{-15} \quad \underline{-15} & \\5x &= 12.8 \\ \underline{\div 5} \quad \underline{\div 5} & \\x &= 2\frac{14}{25}\end{aligned}$$

$$\begin{aligned}13(x+5) &= 748.8 \\13x+65 &= 748.8 \\ \underline{-65} \quad \underline{-65.0} & \\13x &= 683.8 \\ \underline{\div 13} \quad \underline{\div 13} & \\x &= 52.6\end{aligned}$$

$$\begin{aligned}8(s+q) &= 80 \\40+8q &= 80 \\ \underline{-40} \quad \underline{-40} & \\8q &= 40 \\ \underline{\div 8} \quad \underline{\div 8} & \\q &= 5\end{aligned}$$