

10/3/19

Be able to solve multistep equations.

(26)

- ① Clean up each side of the equation
  - get rid of parenthesis
  - combine like terms
- ② Get all variables on one side
- ③ Isolate variable (inverse operations)
- ④ Check answer

$$\begin{array}{r} 9x + 1 = 7x + 19 \\ -7x \qquad -7x \\ \hline 2x + 1 = 19 \\ -1 \qquad -1 \\ \hline 2x = 18 \\ \frac{2x}{2} = \frac{18}{2} \\ x = 9 \end{array}$$

$$\begin{array}{l} \checkmark 9(9) + 1 = 7(9) + 19 \\ 81 + 1 = 63 + 19 \\ 82 = 82 \end{array}$$

$$\begin{array}{r} 6m + 22 = -2m + 10 \\ +2m \quad \quad \quad +2m \\ \hline \end{array}$$

$$\begin{array}{r} 8m + 22 = 10 \\ -22 \quad \quad -22 \\ \hline \end{array}$$

$$\begin{array}{r} 8m = -12 \\ \frac{8m}{8} = \frac{-12}{8} \\ m = -1.5 \end{array}$$

$$\begin{array}{r} 12 - 3c = c \\ -c \quad -c \\ \hline \end{array}$$

$$\begin{array}{r} 12 - 4c = 0 \\ -12 \quad -12 \\ \hline \end{array}$$

$$\begin{array}{r} -4c = -12 \\ \frac{-4c}{-4} = \frac{-12}{-4} \end{array}$$

$$c = 3$$

$$\begin{array}{r} 12 - 3c = c \\ +3c \quad +3c \\ \hline \end{array}$$

$$\begin{array}{r} 12 = 4c \\ \frac{12}{4} = \frac{4c}{4} \end{array}$$

$$3 = c$$

$$\begin{array}{r} -11 + 2d = 13 - 2d \\ +2d \qquad \qquad +2d \end{array}$$

$$\begin{array}{r} -11 + 4d = 13 \\ +11 \qquad \qquad +11 \\ \hline \end{array}$$

$$\frac{4d}{4} = \frac{24}{4}$$

$$d = 6$$

$$\begin{array}{r} \frac{3}{4}y + 2 = \frac{1}{4}y + 5 \\ -\frac{1}{4}y \qquad \qquad -\frac{1}{4}y \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{4}y + 2 = 5 \\ -2 \qquad -2 \\ \hline \end{array}$$

$$\frac{1}{4}y = 3 \cdot 4$$

$$y = 12$$