

Objective: TSWBAT solve two step equations

Examples

① $2x + 7 = 15$

$$\begin{array}{r} +7 \\ \hline 2x = 22 \end{array}$$

$$\begin{array}{r} \frac{2x}{2} = \frac{22}{2} \end{array}$$

$$\boxed{x = 11}$$

② $4g + 11.6 = -23.2$

$$\begin{array}{r} -11.6 \\ \hline 4g = -34.8 \end{array}$$

$$4g = -34.8$$

$$\begin{array}{r} \frac{4g}{4} = \frac{-34.8}{4} \end{array}$$

$$\boxed{g = -8.7}$$

③ $\frac{N}{5} - 7 = -9$

$$\begin{array}{r} +7 \\ \hline \frac{N}{5} = -2 \end{array}$$

$$\frac{N}{5} = -2$$

$$\boxed{N = -10}$$

④ $2 + \frac{x}{-4} = 10$

$$\begin{array}{r} -2 \\ \hline \frac{x}{-4} = 8 \end{array}$$

$$\boxed{x = -32}$$

⑤ $7 = \frac{x-8}{3}$

$$\begin{array}{r} 21 = x - 8 \\ +8 \quad +8 \end{array}$$

$$\boxed{29 = x}$$

⑥ $7y - 17 = -38$

$$\begin{array}{r} +17 \\ \hline 7y = -21 \end{array}$$

$$\frac{7y}{7} = \frac{-21}{7} \quad \boxed{y = -3}$$

⑦ $\frac{1}{2} = \frac{1}{2}c - 2$

$$\begin{array}{r} 1 = c - 4 \\ +4 \quad +4 \end{array}$$

Try These

$$\textcircled{8} \quad 4p + 7 = -13$$

$$\begin{array}{r} -7 \\ \hline 0 \end{array} \quad \begin{array}{r} -7 \\ \hline -20 \end{array}$$

$$\frac{4p}{4} = \frac{-20}{4} \quad \boxed{p = -5}$$

$$\textcircled{9} \quad 7 = \frac{x}{5} - 1$$

$$\begin{array}{r} +1 \\ \hline \end{array} \quad \begin{array}{r} +1 \\ \hline 0 \end{array}$$

$$\textcircled{5} \quad 8 = \frac{x}{9} \quad \textcircled{5}$$

$$\boxed{40 = x}$$

$$\textcircled{10} \quad 3(a-5) = 6$$

$$3a - 15 = 6$$

$$\begin{array}{r} +15 \\ \hline 0 \end{array} \quad \begin{array}{r} +15 \\ \hline \end{array}$$

$$\frac{3a}{3} = \frac{21}{3}$$

$$\boxed{a = 7}$$

$$\textcircled{11} \quad 5(c+2) = -15$$

$$5c + 10 = -15$$

$$\begin{array}{r} -10 \\ \hline 0 \end{array} \quad \begin{array}{r} -10 \\ \hline \end{array}$$

$$\frac{5c}{5} = \frac{-25}{5}$$

$$\boxed{c = -5}$$

$$\textcircled{12} \quad \frac{h+3}{7} = -2 \quad (7)$$

$$h+3 = -14$$

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

$$\boxed{h = -17}$$

3. Find three consecutive integers with a sum of -30.

$x, x+1, x+2$

replace x with -11

$(-11), (-11)+1, (-11)+2$

$$x + x + 1 + x + 2 = -30$$

$-11, -10, -9$

$$3x + 3 = -30$$

$$\frac{-3}{3} = \frac{-33}{3}$$

$$\frac{3x}{3} = \frac{-33}{3}$$

$$x = -11$$

Find two consecutive integers with a sum of -147.

$x, x+1$

$$x + x + 1 = -147$$

$$2x + 1 = -147$$

$$\frac{-1}{2} \quad \frac{-1}{-148}$$

$$\frac{2x}{2} = \frac{-148}{2}$$

$$x = -74$$

$$-74, (-74) + 1$$

$$\boxed{-74, -73}$$

Find five consecutive integers with a sum of 155.

$$x, x+1, x+2, x+3, x+4$$

replace x with 29

$$x+x+1+x+2+x+3+x+4=155$$

$$5x+10=155$$

$$\begin{array}{r} -10 \\ \hline 5 \end{array} \quad \begin{array}{r} -10 \\ \hline 145 \end{array}$$

$$\begin{array}{r} 5x=145 \\ \hline 5 \end{array} \quad \begin{array}{r} 145 \\ \hline 5 \end{array}$$

$$x=29$$

$$29, (29+1), (29+2), (29+3), (29+4)$$

$$29, 30, 31, 32, 33$$

1. Find two consecutive integers with a sum of 37.

$$x, x+1$$

$$18, (18)+1$$

$$x+x+1=37$$

$$18, 19$$

$$2x+1=37$$

$$\frac{-1}{2} \quad \frac{-1}{36}$$

$$\frac{2x}{2} = \frac{36}{2}$$

$$x = 18$$