

Two-Step Equations

Solve each equation.

$$1) 6 = \frac{a}{4} + 2$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$

$$\frac{4}{1} \times 4 = \frac{a}{4} \times \frac{4}{1}$$

$$\{16\}$$

$$16 = a$$

$$2) -6 + \frac{x}{4} = -5$$

$$\begin{array}{r} +6 \\ +6 \end{array}$$

$$\frac{4}{1} \times \frac{x}{4} = 1 \times \frac{4}{1}$$

$$\{4\}$$

$$x = 4$$

$$3) 9x - 7 = -7$$

$$\begin{array}{r} +7 \\ +7 \end{array}$$

$$\{0\}$$

$$\frac{9x}{9} = \frac{0}{9}$$

$$x = 0$$

$$4) 0 = 4 + \frac{n}{5}$$

$$\begin{array}{r} -4 \\ -4 \end{array}$$

$$\{-20\}$$

$$\frac{5}{1} \times -4 = \frac{n}{5} \times \frac{5}{1}$$

$$-20 = n$$

$$5) -4 = \frac{r}{20} - 5$$

$$\begin{array}{r} +5 \\ +5 \end{array}$$

$$\{20\}$$

$$\frac{20}{1} \times 1 = \frac{r}{20} \times \frac{20}{1}$$

$$20 = r$$

$$\frac{6}{1} \times -1 = \frac{5+x}{6} \times \frac{6}{1}$$

$$\{-11\}$$

$$-6 = 5 + x$$

$$\begin{array}{r} -5 \\ -5 \end{array}$$

$$-11 = x$$

$$\frac{3}{1} \times \frac{v+9}{3} = 8 \times \frac{3}{1}$$

$$\{15\}$$

$$v+9 = 24$$

$$\begin{array}{r} -9 \\ -9 \end{array}$$

$$v = 15$$

$$8) 2(n+5) = -2$$

$$\{-6\}$$

$$2n + 10 = -2$$

$$\begin{array}{r} -10 \\ -10 \end{array}$$

$$\frac{2n}{2} = \frac{-12}{2}$$

$$n = -6$$

$$9) -9x + 1 = -80$$

$$\begin{array}{r} -1 \\ -1 \end{array}$$

$$\{9\}$$

$$-9x = -81$$

$$\begin{array}{r} -9 \\ -9 \end{array}$$

$$x = 9$$

$$10) -6 = \frac{n}{2} - 10$$

$$\begin{array}{r} +10 \\ +10 \end{array}$$

$$\{8\}$$

$$\frac{2}{1} \times 4 = \frac{n}{2} \times \frac{2}{1}$$

$$8 = n$$

$$11) -2 = 2 + \frac{v}{4}$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$

$$\{-16\}$$

$$\frac{4}{1} \times -4 = \frac{v}{4} \times \frac{4}{1}$$

$$-16 = v$$

$$12) 144 = -12(x+5)$$

$$\{-17\}$$

$$144 = -12x - 60$$

$$\begin{array}{r} +60 \\ +60 \end{array}$$

$$\frac{204}{-12} = \frac{-12x}{-12}$$

$$-17 = x$$