

Solve each equation.

$$1) \quad -11 = 13 + 8w$$

$$\underline{-13 \quad -13}$$

$$\underline{-24 = \frac{8w}{8}}$$

$$\underline{-3 = w}$$

$$2) \quad -7 = -9 + k$$

$$\underline{+9 \quad +9}$$

$$\underline{2 = k}$$

$$3) \quad \frac{12 - 4y}{-12} = 40$$

$$\underline{-4y = 28}$$

$$\underline{\cancel{-4}y = \frac{28}{-4}}$$

$$\underline{y = -7}$$

$$4) \quad 7 \cdot 11 = \frac{x}{7} \cdot \frac{7}{1}$$

$$\underline{77 = x}$$

$$5) \quad 8 + 5x = 4x - 19$$

$$\underline{-4x \quad -4x}$$

$$\underline{8 + 1x = -19}$$

$$\underline{-8 \quad -8}$$

$$\underline{1x = -27}$$

or

$$\underline{x = -27}$$

$$6) \quad \begin{array}{r} 17 - 6r = -13 \\ -17 \qquad \qquad -17 \\ \hline -6r = -30 \\ \cancel{-6} \qquad \qquad \cancel{-6} \\ r = 5 \end{array}$$

$$7) \quad \begin{array}{r} -7a = 42 \\ \cancel{-7} \qquad \qquad \cancel{-7} \\ a = -6 \end{array}$$

$$8) \quad \begin{array}{r} 6 = -34 - 5d \\ +34 \qquad +34 \\ \hline 40 = \frac{-5d}{-5} \end{array}$$

$$\underline{-8 = d}$$

$$9) \quad \begin{array}{r} x + 40 = 17 \\ -40 \qquad -40 \\ \hline x = -23 \end{array}$$

$$\begin{array}{r} \frac{3}{4} \\ \cancel{40} \\ \hline -23 \end{array}$$

$$10) \quad \begin{array}{r} 6 - 14x = -16 + 8x \\ +14x \qquad +14x \\ \hline 6 = -16 + 22x \\ +16 \qquad +16 \\ \hline \frac{22}{22} = \frac{22x}{22} \end{array}$$

$$\underline{1 = x}$$

$$11) \quad \begin{array}{r} -16 = 11 + y \\ -11 \qquad -11 \\ \hline -27 = y \end{array}$$

$$12) \quad \begin{array}{r} 5x - 12 = 53 \\ +12 \qquad +12 \\ \hline 5x = \frac{65}{5} \end{array}$$

$$\begin{array}{r} \cancel{5} \\ \cancel{65} \\ \hline -5 \\ 13 \end{array}$$

$$13) \quad \begin{array}{r} \frac{4}{1} \cdot \frac{x}{4} = 12 \cdot 4 \\ \cancel{4} \qquad \cancel{4} \\ x = 48 \end{array}$$

$$14) \quad \begin{array}{r} 5n + 6 = -8n - 20 \\ +8n \qquad +8n \\ \hline 13n + 6 = -20 \end{array}$$

$$\begin{array}{r} -6 \qquad -6 \\ \hline 13n = -26 \\ \cancel{13} \qquad \cancel{13} \\ n = -2 \end{array}$$

$$15) \quad \begin{array}{r} 8a - 15 = -3a + 40 \\ +3a \qquad +3a \\ \hline 11a - 15 = 40 \end{array}$$

$$\begin{array}{r} +15 \qquad +15 \\ \hline 11a = 55 \\ \cancel{11} \qquad \cancel{11} \\ a = 5 \end{array}$$