

Solving Review

Solve each equation.

$$1) 7 = n + 8$$

$$\begin{array}{r} 7 = n + 8 \\ -8 \quad -8 \\ \hline -1 = n \end{array}$$

$$2) -21 = x - 15$$

$$\begin{array}{r} -21 = x - 15 \\ +15 \quad +15 \\ \hline -6 = x \end{array}$$

$$3) \frac{-48}{-16} = \frac{-16n}{-16}$$

$$\begin{array}{r} -48 \\ \hline -16 \\ \hline 3 \end{array} = n$$

$$4) -5n = 65$$

$$\begin{array}{r} -5n = 65 \\ \hline -5 \quad -5 \\ \hline n = -13 \end{array}$$

$$5) -8 + 3x = -53$$

$$\begin{array}{r} -8 + 3x = -53 \\ +8 \quad +8 \\ \hline 3x = -45 \\ \frac{3x}{3} = \frac{-45}{3} \\ x = -15 \end{array}$$

$$6) 36 = 7v + 8$$

$$\begin{array}{r} 36 = 7v + 8 \\ -8 \quad -8 \\ \hline 28 = 7v \\ \frac{28}{7} = \frac{7v}{7} \\ 4 = v \end{array}$$

Solve each equation by taking square roots.

$$7) b^2 = 1$$

$$\sqrt{b^2} = \sqrt{1}$$

$$b = \pm 1 \leftarrow \text{same thing}$$

or

$$b = 1 \quad b = -1$$

$$8) x^2 = 16$$

$$\sqrt{x^2} = \sqrt{16}$$

$$x = 4 \text{ or } x = -4 \quad (x = \pm 4)$$

$$9) n^2 - 9 = 27$$

$$\begin{array}{r} n^2 - 9 = 27 \\ +9 \quad +9 \\ \hline n^2 = 36 \\ \sqrt{n^2} = \sqrt{36} \\ n = 6 \text{ or } n = -6 \quad (n = \pm 6) \end{array}$$

$$10) n^2 + 2 = 66$$

$$\begin{array}{r} n^2 + 2 = 66 \\ -2 \quad -2 \\ \hline n^2 = 64 \\ \sqrt{n^2} = \sqrt{64} \\ n = 8 \text{ or } n = -8 \\ (n = \pm 8) \end{array}$$

$$11) 4b^2 + 4 = 260$$

$$\begin{array}{r} 4b^2 + 4 = 260 \\ -4 \quad -4 \\ \hline 4b^2 = 256 \\ \frac{4b^2}{4} = \frac{256}{4} \\ \sqrt{b^2} = \sqrt{64} \\ b = 8 \text{ or } b = -8 \quad (b = \pm 8) \end{array}$$

$$12) 6x^2 + 10 = 226$$

$$\begin{array}{r} 6x^2 + 10 = 226 \\ -10 \quad -10 \\ \hline 6x^2 = 216 \\ \frac{6x^2}{6} = \frac{216}{6} \\ \sqrt{x^2} = \sqrt{36} \\ x = 6 \text{ or } x = -6 \\ (x = \pm 6) \end{array}$$