8-8 Solving Radical Equations and Inequalities

Lesson Quiz

Solve each equation or inequality.

1. $7 + \sqrt{2x + 4} = 13$

2. $3\sqrt[3]{x + 4} = \sqrt[3]{2x - 17}$

3. $\sqrt{2x + 12} = x + 2$

4. $4(x - 5)^{\frac{1}{2}} = 12$

5. $\sqrt[3]{x + 5} \geq 4$

6. The radius r in feet of a spherical water tank can be determined by using the formula $r = \sqrt[3]{\frac{3V}{4\pi}}$, where V is the volume of the tank in cubic feet. To the nearest cubic foot, what is the volume of a spherical tank with a radius of 32 ft?

8-8 Solving Radical Equations and Inequalities

Lesson Quiz

Solve each equation or inequality.

1. $7 + \sqrt{2x + 4} = 13$ $x = 16$

2. $3\sqrt[3]{x + 4} = \sqrt[3]{2x - 17}$ $x = -5$

3. $\sqrt{2x + 12} = x + 2$ $x = 2$

4. $4(x - 5)^{\frac{1}{2}} = 12$ $x = 14$

5. $\sqrt[3]{x + 5} \geq 4$ $x \geq 59$

6. The radius r in feet of a spherical water tank can be determined by using the formula $r = \sqrt[3]{\frac{3V}{4\pi}}$, where V is the volume of the tank in cubic feet. To the nearest cubic foot, what is the volume of a spherical tank with a radius of 32 ft?
   $137{,}258\ \text{ft}^3$