

EXAMPLE 1 *Solving a Simple Radical Equation*

Solve $\sqrt{x} + 5 = 9$.*Exercises for Example 1*

Solve the equation. Check your solution.

1. $\sqrt[3]{x} + 2 = 0$

2. $-\sqrt{x} - 5 = -6$

3. $\sqrt[4]{x} = 3$

EXAMPLE 2 *Solving an Equation with One Radical*

Solve $\sqrt[3]{8x + 3} - 5 = -2$.*Exercises for Example 3*

Solve the equation. Check your solution.

7. $\sqrt{4 + 3x} = 10$

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

9. $\sqrt[3]{4x - 1} = 3$

EXAMPLE 3 *Solving an Equation with Two Radicals*

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

Exercises for Example 4

Solve the equation. Check your solution.

10. $\sqrt{7x-8} = \sqrt{5x}$

11. $\sqrt{3x+5} = \sqrt{x+15}$

12. $\sqrt[3]{x+14} = 2\sqrt[3]{x}$