

DIRECTIONS: Simplify.

1. $(4 + \sqrt{6})(4 - \sqrt{6})$

2. $(\sqrt{7} - \sqrt{3})^2$

3. $\frac{4}{\sqrt{7}-\sqrt{3}}$

4. $(6\sqrt{7} + \sqrt{14})(\sqrt{7} - \sqrt{2})$

5. $\frac{\sqrt{2}+1}{\sqrt{3}-4}$

DIRECTIONS: Solve. If an equation has no real solution, say so.

6. $\sqrt{x-5} = 3$

7. $\sqrt[3]{7x+1} = 2$

8. $\sqrt{x+3} - x = 3$

9. $2\sqrt{x} = 6$

10. $x\sqrt{2} = 6$

11. $\sqrt{2y-7} + \sqrt{2y} = 7$