

Name _____ Period _____

Find all the real roots.

1. $\sqrt{36}$

2. $\sqrt{0.25}$

3. $\sqrt[3]{-64}$

4. $\sqrt[3]{\frac{8}{125}}$

Simplify each radical expression. Use absolute value symbols when needed.

5. $\sqrt{25y^2}$

6. $\sqrt{49x^4}$

7. $\sqrt[3]{-8x^9}$

8. $\sqrt[3]{-0.125y^6}$

Find the two real solutions of each equation.

9. $9x^2 - 4 = 0$

10. $x^4 = 0.0016$

Multiply or divide and simplify. Assume that all variables are positive.

11. $\sqrt[2]{2x} \cdot \sqrt{18xy^2}$

12. $\frac{\sqrt[3]{4xy^7}}{\sqrt[3]{32x^4y^4}}$

Simplify. Rationalize all denominators.

13. $\sqrt[3]{180} + \sqrt{45} - 8\sqrt{20}$

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