

Name: _____
Algebra 1

Date: _____
Band: _____

Unit 10: Radical Expressions Study Guide

LT#1: Simplify radicals involving products and quotients.

Simplify each radical expression.

1. $3\sqrt{14} \cdot (-2\sqrt{21})$

2. $\sqrt{8} \cdot \frac{1}{2}\sqrt{6}$

3. $\sqrt{\frac{25a^3}{4a}}$

4. $\frac{\sqrt{8s}}{\sqrt{18s^3}}$

5. $-2\sqrt{7x^2} \cdot \frac{1}{3}\sqrt{28x^3}$

6. $6\sqrt{5t^3} \cdot \sqrt{15t^5}$

7. Write three radical expressions that have $4\sqrt{2s}$ as their simplified form. What do the three expressions have in common? Explain.

LT#2: Simplify sums and differences of radical expressions.

Simplify each radical expression.

8. $5\sqrt{6} - 3\sqrt{6}$

9. $\sqrt{2}(\sqrt{8} + \sqrt{8})$

10. $(3\sqrt{2} - 2\sqrt{5})(4\sqrt{2} + 2\sqrt{5})$

11. $\frac{3}{\sqrt{2}-3}$

12. $\frac{\sqrt{3}-3}{\sqrt{3}+3}$