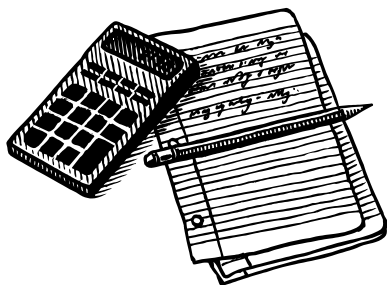


Unit 4 Exponential Functions
Day 13 Notes Operations With Radicals
(Add, Subtract, and Multiply) PH 11-4

Name _____
Date _____ Hour _____

Warm-Up: Simplify each radical.



a. $\sqrt{12} \cdot \sqrt{5}$

b. $\sqrt{x^4 y^9}$

Like radicals have the same radicand. For example, $4\sqrt{7}$ and $-12\sqrt{7}$ are like radicals, but $3\sqrt{11}$ and $2\sqrt{5}$ are unlike radicals. You can combine like radicals to simplify sums and differences.

Example 1: Simplify each expression.

a. $\sqrt{2} + 3\sqrt{2}$

b. $-3\sqrt{5} - 4\sqrt{5}$

c. $\sqrt{10} - 5\sqrt{10}$

Example 2: Simplify each expression.

a. $7\sqrt{3} - \sqrt{12}$

b. $3\sqrt{20} + 2\sqrt{7}$

c. $3\sqrt{3} - 2\sqrt{27}$

Example 3: Use the distributive property to simplify each radical expression.

a. $\sqrt{5}(2 + \sqrt{10})$

b. $\sqrt{2x}(\sqrt{6x} - 11)$

c. $\sqrt{5a}(\sqrt{5a} + 3)$

Day 13 Homework: page 603 #10-21 all and #38-40 all. (15 exercises-Prentice Hall)