Name _____ Class _____ Date _____

Practice 9-4

Example Exercises

Example 1

Simplify each radical expression. Assume that all variables under radicals represent positive numbers.

1. $\sqrt{50}$ **2.** $\sqrt{48}$ **3.** $\sqrt{20}$ **4.** $\sqrt{8}$ **5.** $\sqrt{25x^5}$ **6.** $\sqrt{75}$

7. $\sqrt{300}$ **8.** $\sqrt{49a^3}$ **9.** $\sqrt{125}$ **10.** $\sqrt{28}$ **11.** $\sqrt{63}$ **12.** $\sqrt{72}$

Example 2

Simplify each radical expression. Assume that all variables under radicals represent positive numbers.

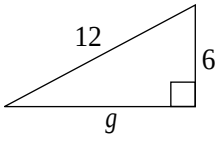
13. $6\sqrt{20}$ **14.** $\sqrt{8} \cdot \sqrt{2}$ **15.** $\sqrt{ab^3}$ **16.** $\sqrt{30} \cdot \sqrt{6}$ **17.** $12\sqrt{60x^2}$

18. $\left(2\sqrt{3}\right)^2$ **19.** $\sqrt{12} \cdot \sqrt{27}$ **20.** $\left(7\sqrt{5}\right)^2$ **21.** $\sqrt{a^5b^6}$ **22.** $\sqrt{14} \cdot \sqrt{8}$

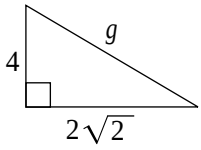
Example 3

Find *g*. Evaluate any radicals and round to the nearest tenth.

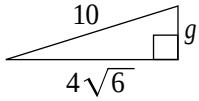
23.



24.



25.



Examples 4-6

Simplify each radical expression. Assume that all variables under radicals represent positive numbers.

26. $\sqrt{\frac{7}{9}}$ **27.** $\sqrt{\frac{17}{64}}$ **28.** $\frac{\sqrt{48}}{\sqrt{8}}$ **29.** $\frac{\sqrt{120}}{\sqrt{10}}$ **30.** $\frac{5}{\sqrt{2}}$

31. $\frac{7}{\sqrt{3}}$ **32.** $\sqrt{\frac{15}{49}}$ **33.** $\frac{\sqrt{60}}{\sqrt{12}}$ **34.** $\frac{3}{\sqrt{3}}$ **35.** $\frac{4}{\sqrt{8}}$