Name_____ Hour _____ Date_____

Review

Form G

Lessons 6-1 through 6-4

Do you know HOW?

Find all the real roots.

1. $\sqrt{36}$ **2.** $\sqrt{0.25}$ **3.** $\sqrt[3]{-64}$ **4.** $\sqrt[3]{\dfrac{8}{125}}$

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. $\sqrt[2]{2x} \bullet \sqrt{18xy^2}$ **12.** $\dfrac{\sqrt[3]{4xy^7}}{\sqrt[3]{32x^4y^4}}$

Simplify. Rationalize all denominators.

13. $\sqrt[3]{180} + \sqrt{45} - 8\sqrt{20}$ **14.** $\dfrac{5 + \sqrt{3}}{2 - \sqrt{3}}$
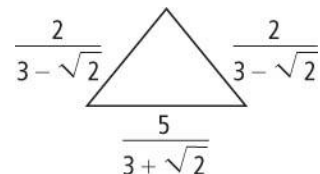
Simplify each expression.

15. $\left(-125\right)^{\frac{2}{3}}$ **16.** $81^{\frac{3}{4}}$ **17.** $32^{0.6}$ **18.** $49^{1.5}$

Do you UNDERSTAND?

19. Geometry What is the perimeter of the triangle at the right?

20. Reasoning Solve. $\sqrt{75} + \sqrt{3x} = 12\sqrt{3}$