

## Chapter 6 Quiz 1

Form G

### Do you know HOW?

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

Simplify each expression.

15.  $(-125)^{\frac{2}{3}}$

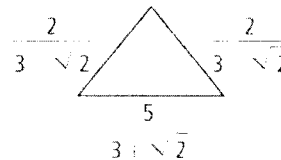
16.  $81^{\frac{3}{4}}$

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