LESSON 122 Review Quiz

Take the quiz and record your score on your grading sheet. You may use a calculator unless otherwise specified. After the quiz, make sure you review what you missed.

1. $\sqrt{27}$

Simplify the expression above.

2. $\sqrt[3]{8x^6}$

Simplify the expression above. Assume x is positive.

3. $\sqrt{2} \cdot \sqrt{8} - 2\sqrt{18} + \sqrt{50}$

If the expression above is written in the form $a + b\sqrt{2}$, what is the value of ab ?

4. $\dfrac{2}{3 + \sqrt{7}}$

Rationalize the denominator of the expression above.

5. Which expression evaluates to the largest value?

A) $4^{3/2}$ B) $9^{3/2}$

C) $16^{3/4}$ D) $64^{2/3}$

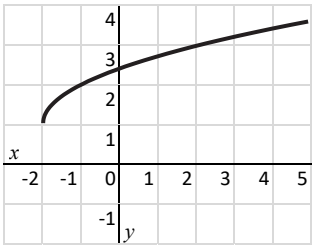
6. $\sqrt{8 - x} = x - 2$

Solve the equation above.

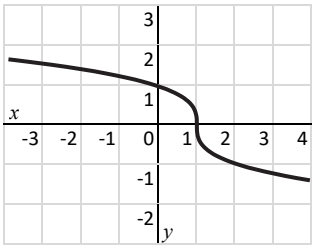
7. $(x - 5)^{1/3} - 2 = 0$

Solve the equation above.

8. The graph of $y = \sqrt{x}$ is shifted to obtain the graph of $f(x)$ shown below. Write the equation of $f(x)$.



9. Which function is graphed below?



A) $f(x) = \sqrt[3]{x - 1}$

B) $f(x) = \sqrt[3]{x} + 1$

C) $f(x) = -\sqrt[3]{x - 1}$

D) $f(x) = \sqrt[3]{-x} - 1$

10. A 13-foot ladder is leaning against a wall. The ladder reaches a height of 12 feet. How far is the bottom of the ladder from the wall?