NAME _____ CLASS _____ DATE _____

Practice Masters Level B

2.7 A Preview of Transformations

Identify each transformation from the parent function $f(x) = x^3$ to g.

1. $g(x) = x^3 - 2$ _____
2. $g(x) = (x - 2)^3$ _____
3. $g(x) = (-4x^3)$ _____
4. $g(x) = -x^3 + 1$ _____
5. $g(x) = \frac{1}{3}x^3$ _____
6. $g(x) = 2\left(x - \frac{1}{2}\right)^3$ _____

Identify each transformation from the parent function $f(x) = \sqrt{x}$ to g.

7. $g(x) = \sqrt{x} + 4$ _____
8. $g(x) = \sqrt{(5x)}$ _____
9. $g(x) = \frac{1}{2}\sqrt{x}$ _____
10. $g(x) = -\sqrt{x} - 2$ _____
11. $g(x) = \sqrt{x - 3}$ _____
12. $g(x) = \sqrt{x - 2} + 4$ _____

Write the function for each graph described below.

13. the graph of $f(x) = x^3$ reflected across the y-axis _____
14. the graph of $f(x) = -x^2$ translated horizontally 5 units to the left _____
15. the graph of $f(x) = \sqrt{x}$ stretched vertically by a factor of 4 _____
16. the graph of $f(x) = x^3$ stretched horizontally by a factor of 5 _____
17. the graph of $f(x) = \frac{1}{3}x + 9$ reflected across the y-axis _____
18. the graph of $\sqrt{2x}$ stretched vertically by a factor of $\frac{1}{2}$ _____