



Practice

2.7 A Preview of Transformations

Identify each transformation from the parent function $f(x) = x^2$ to g .

1. $g(x) = (x + 7.5)^2$ _____

2. $g(x) = x^2 + 7.5$ _____

3. $g(x) = (52x)^2$ _____

4. $g(x) = -2x^2$ _____

5. $g(x) = 14x^2 + 6$ _____

6. $g(x) = 12(x - 7)^2$ _____

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

7. $g(x) = \sqrt{x + 21}$ _____

8. $g(x) = 17\sqrt{x}$ _____

9. $g(x) = \sqrt{\frac{1}{2}x}$ _____

10. $g(x) = \sqrt{x} + 13.7$ _____

11. $g(x) = -3\sqrt{x}$ _____

12. $g(x) = 41\sqrt{x - 8}$ _____

Write the function for each graph described below.

13. the graph of $f(x) = x^3$ reflected across the x -axis _____

14. the graph of $f(x) = x^5$ translated 7 units to the left _____

15. the graph of $f(x) = x^4$ stretched horizontally by a factor of 26 _____

16. the graph of $f(x) = |x|$ compressed vertically by a factor of $\frac{1}{12}$ _____

17. the graph of $f(x) = \frac{2}{3}x + 9$ reflected across the y -axis _____

18. the graph of $f(x) = x^3$ translated 33 units down _____



Practice Masters Level A

2.7 A Preview of Transformations

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

1. $g(x) = x + 2$ _____

2. $g(x) = 3x$ _____

3. $g(x) = -x$ _____

4. $g(x) = -6x$ _____

5. $g(x) = (x - 5)$ _____

6. $g(x) = -3x + 2$ _____

Identify each transformation from the parent function $f(x) = x^2$ to g .

7. $g(x) = x^2 + 3$ _____

8. $g(x) = -x^2$ _____

9. $g(x) = (6x^2)$ _____

10. $g(x) = 2x^2 - 6$ _____

11. $g(x) = \frac{1}{2}x^2$ _____

12. $g(x) = (x - 2)^2$ _____

Write the function for each graph described below.

13. the graph of $f(x) = x^2$ reflected across the x -axis _____

14. the graph of $f(x) = x^2$ reflected across the y -axis _____

15. the graph of $f(x) = x^4$ translated 5 units up _____

16. the graph of $f(x) = |x|$ stretched horizontally by a factor of 3 _____

17. the graph of $f(x) = x^3$ translated 3 units down _____

18. the graph of $f(x) = x^2$ translated 4 units left _____