Pre – Calculus Name _____
1.5 Transformations Worksheet

For number 1 – 12, describe the transformation(s) of each function.

1. $g(x) = (x - 2)^2 + 5$

2. $g(x) = -|x| + 3$

3. $g(x) = 4x - 2$

4. $g(x) = \frac{3}{x-1}$

5. $g(x) = \frac{1}{3}x^3 - 4$

6. $g(x) = -\sqrt{x+1}$

7. $g(x) = -x^2 + 4$

8. $g(x) = |x + 4|$

9. $g(x) = (x - 1)^2$

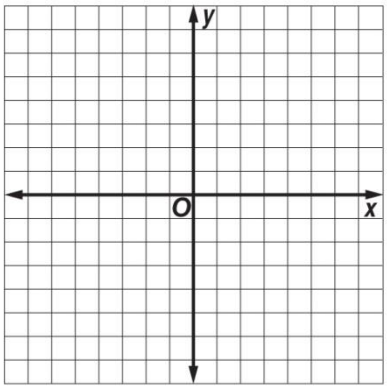
10. $g(x) = -(x + 2)^3 - 1$

11. $g(x) = \frac{1}{x+2} + 5$

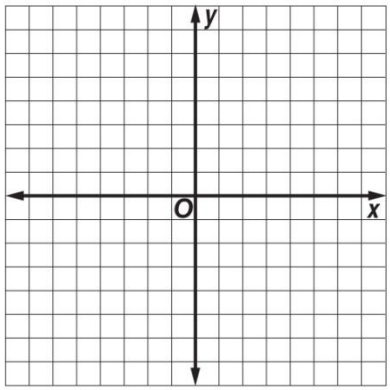
12. $g(x) = \frac{1}{2}\sqrt{x} - 10$

Use the parent function of *g(x)* to graph each function. <u>This should be done without a graphing calculator.</u>

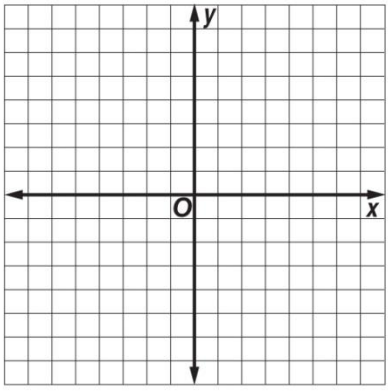
13. $g(x) = \sqrt{x + 3} + 1$



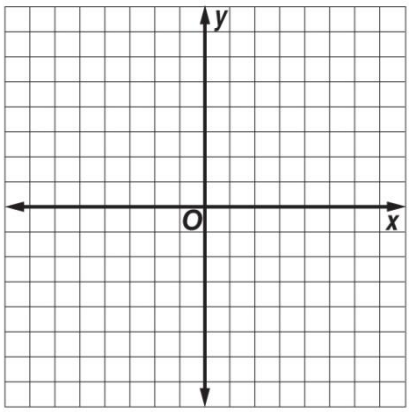
14. $g(x) = -|2x|$



15. $g(x) = 2|x + 2| - 3$

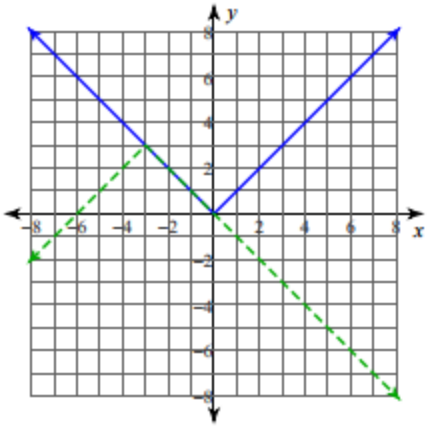


16. $g(x) = 3\sqrt{x+8}$



The parent function is graphed as the solid line, and the transformed function is graphed as the dashed line. Write an equation for the transformed function.

19.



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