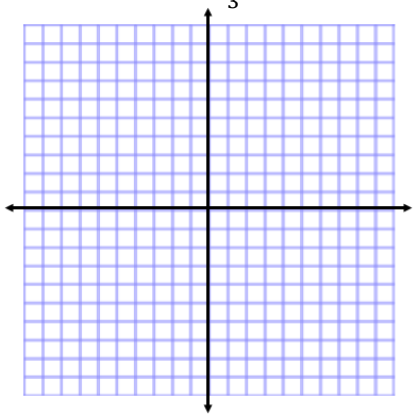
Parent Function Review

For problem 1- 6, please give the name of the parent function and describe the transformation represented. You may use your graphing calculator to compare & sketch.

1. $g(x) = -2(\frac{1}{3}x)^2 - 1$

Parent: _____

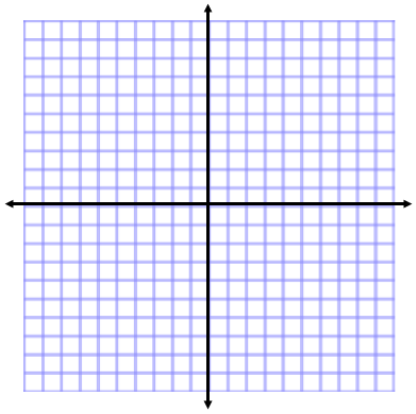
Transformations:_____



2. $f(x) = 3|-x + 1| - 1$

Parent: _____

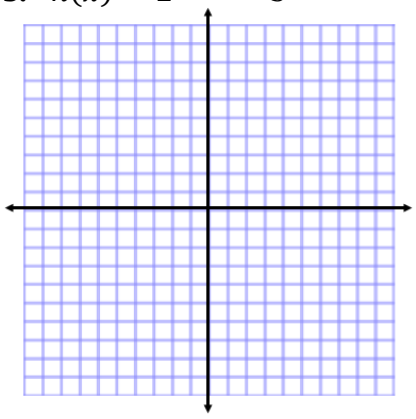
Transformations:_____



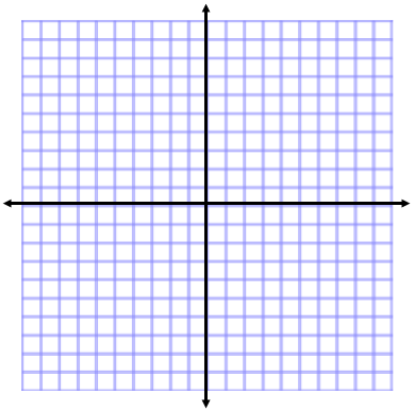
3. $h(x) = 2^{2x+6} - 3$

Parent: _____

Transformations:_____

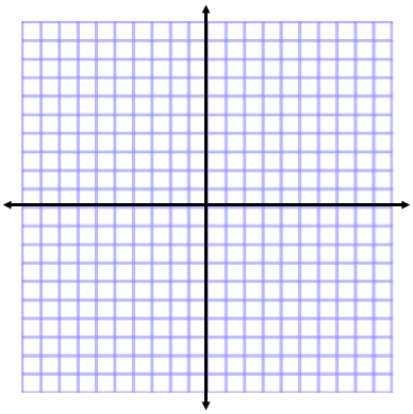


4. $g(x) = -2(x+1)^2 + 3$ Parent: _____



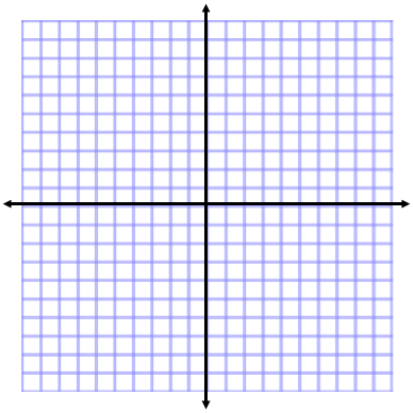
Transformations:_____

5. $g(x) = 3\sqrt[3]{-x+1} - 2$ Parent: _____



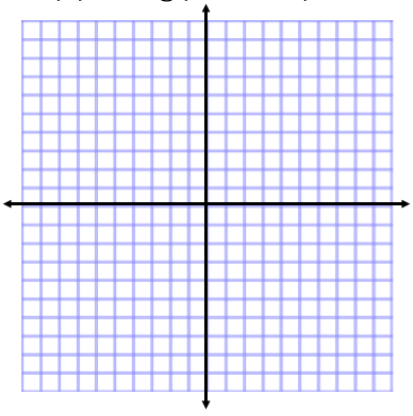
Transformations:_____

6. $f(x) = -(x-3)^3 - 2$ Parent: _____



Transformations:_____

7. $h(x) = \log(-2x-3) + 4$ Parent: _____



Transformations:_____

For problems 8 – 12, given the parent function and a description of the transformation, write the equation of the transformed function, f(x).

8. Absolute value—reflect over the x-axis, translate up 5, and right 3. _____

9. Cube root—vertical stretch/compression by $\frac{2}{5}$, reflect over the y-axis._____

10. Logarithm —horizontal stretch/compression by 2, translate down 1 and left 2._____

11. Exponential—vertical stretch by 8. _____

12. Quadratic—vertical stretch by 5, horizontal stretch/compress by 8, translate right 2._____

13. Which graph best represents the function $f(x) = 2x^2 - 2$?

a. b. c. d.