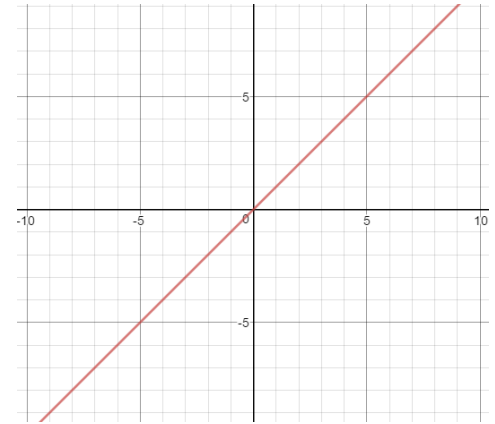


Unit 1 Day 4 – Transformations

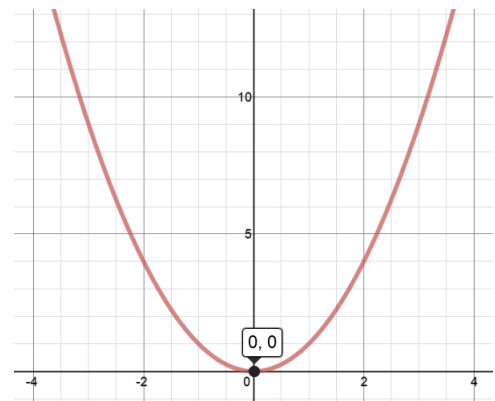
Graph $f(x) = x + 5$

Parent Function Name _____



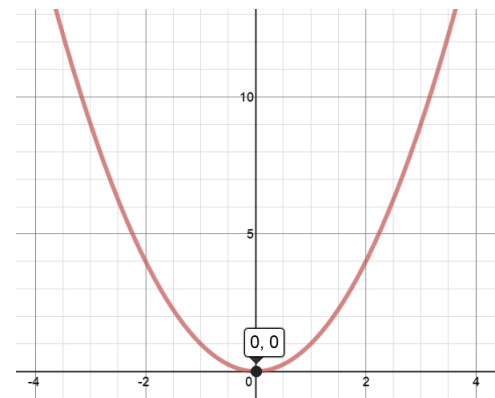
Graph $f(x) = x^2 + 3$

Parent Function Name _____



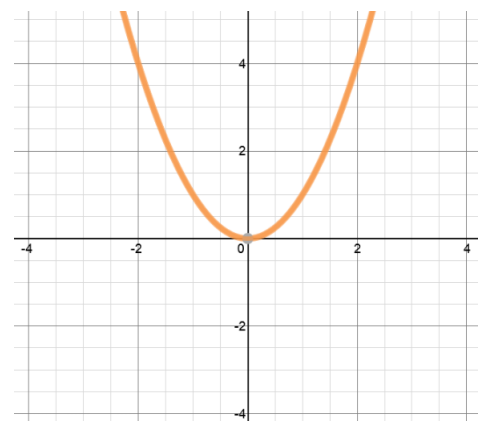
Graph $f(x) = (x - 1)^2$

Parent Function Name _____



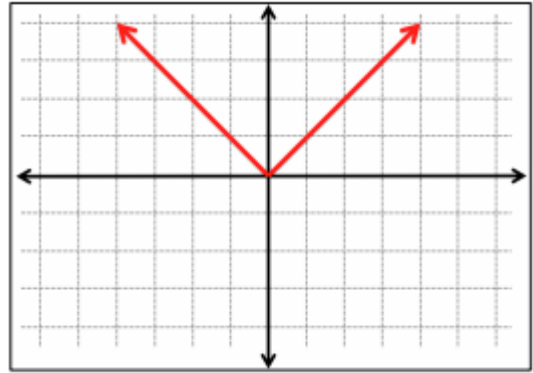
Graph $f(x) = -x^2$

Parent Function Name _____



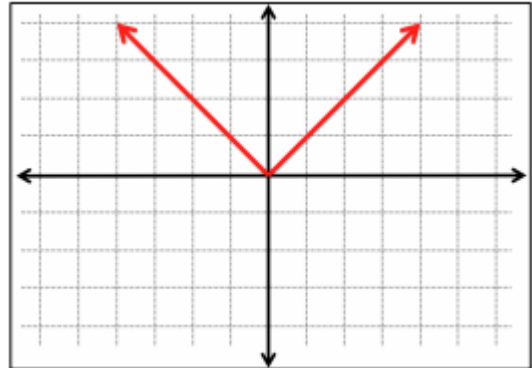
Graph $f(x) = |x - 3| - 4$

Parent Function Name _____



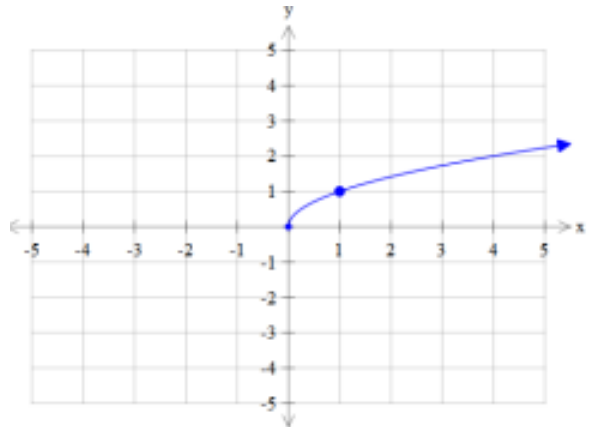
Graph $f(x) = 0.5|x|$

Parent Function Name _____



Graph $f(x) = \sqrt{x + 2}$

Parent Function Name _____



Give the name of the parent function and describe the transformation represented.

1. $g(x) = x^2 - 1$ Name: _____ Transformation: _____

2. $f(x) = |x-1|$ Name: _____ Transformation: _____

3. $h(x) = \sqrt{x-2}$ Name: _____ Transformation: _____

4. $g(x) = x^3 + 3$ Name: _____ Transformation: _____

6. $f(x) = |x + 5| - 2$ Name: _____ Transformation: _____

7. $f(x) = -x + 3$ Name: _____ Transformation: _____

8. $f(x) = (-3x)^2$ Name: _____ Transformation: _____

9. $g(x) = -\sqrt{x}$ Name: _____ Transformation: _____

10. $h(x) = -x^2 + 1$ Name: _____ Transformation: _____

11. $h(x) = -|x - 2|$ Name: _____ Transformation: _____

Given the parent function and transformation description, write the equation of the transformed function, $f(x)$.

12. Absolute value—vertical shift up 5, horizontal shift right 3. _____

13. Linear—reflected over the x axis and vertical shift down 2 _____