

Given Function $y = f(x)$, then the equation...




$$y = a \cdot f(x)$$

where $a < 0$ (a is negative), causes a reflection over the x -axis.

Parent Function $y = f(x)$

After Transformations $y = a \cdot f(x)$

Square Function

$$y = x^2$$

Absolute Value Function

$$y = |x|$$

Logarithmic Function

$$y = \log x$$

Cube Function

$$y = x^3$$

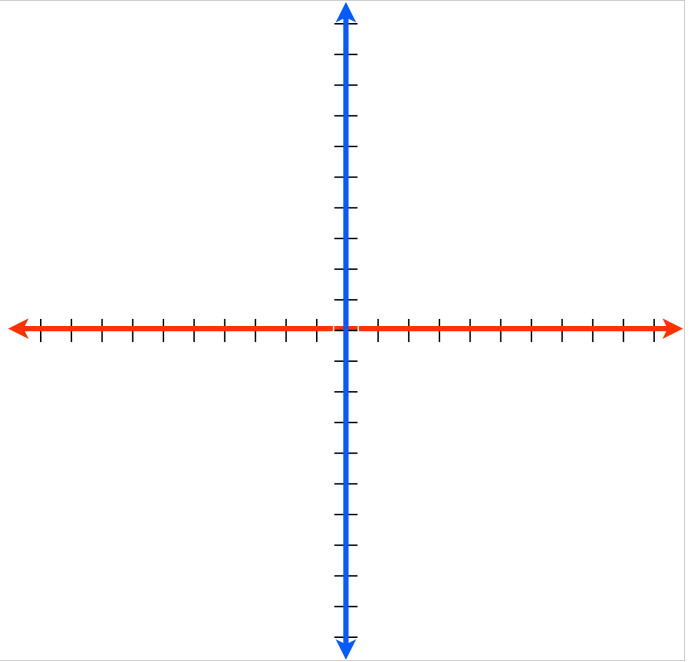
Square Root Function

$$y = \sqrt{x}$$

Square Function

$$y = x^2$$

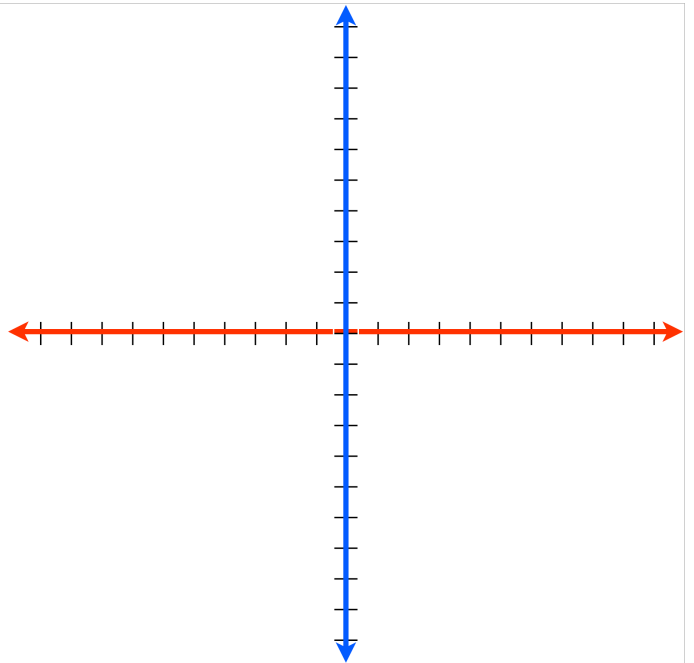
$$y = -x^2$$



Absolute Value Function

$$y = |x|$$

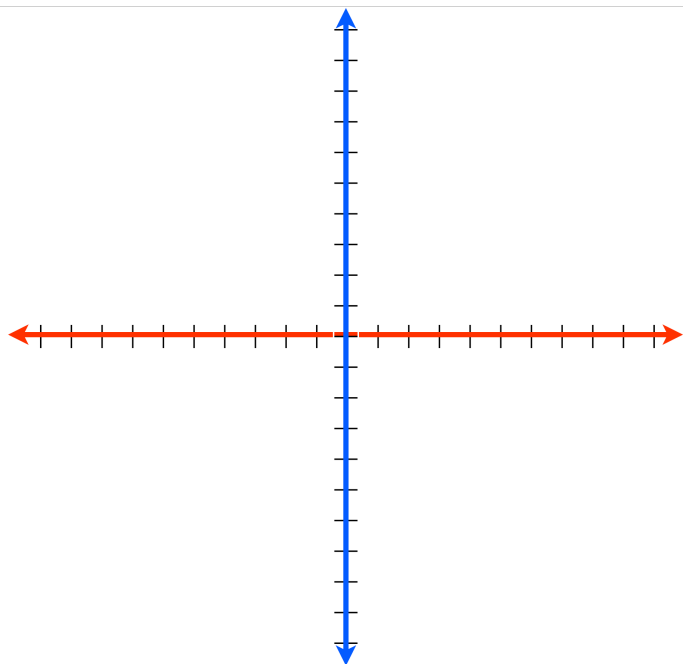
$$y = -|x|$$



Square Root Function

$$y = \sqrt{x}$$

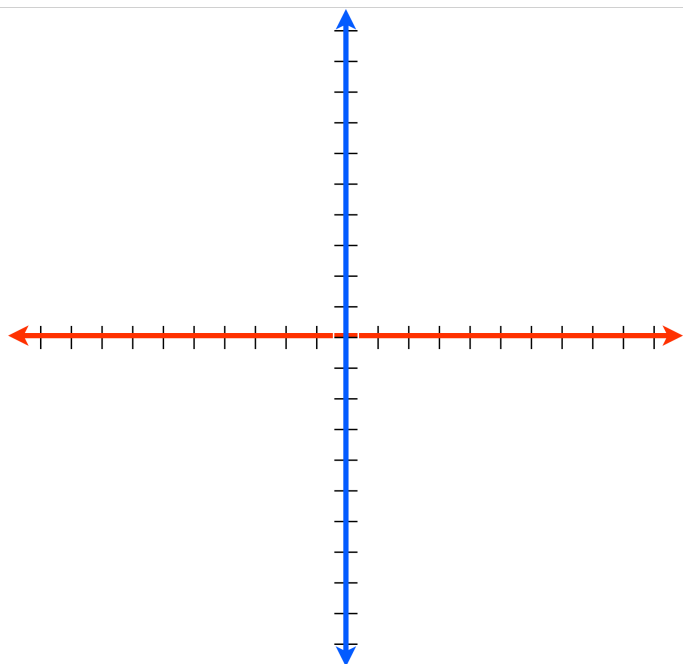
$$y = -\sqrt{x}$$



Square Function

$$y = x^2$$

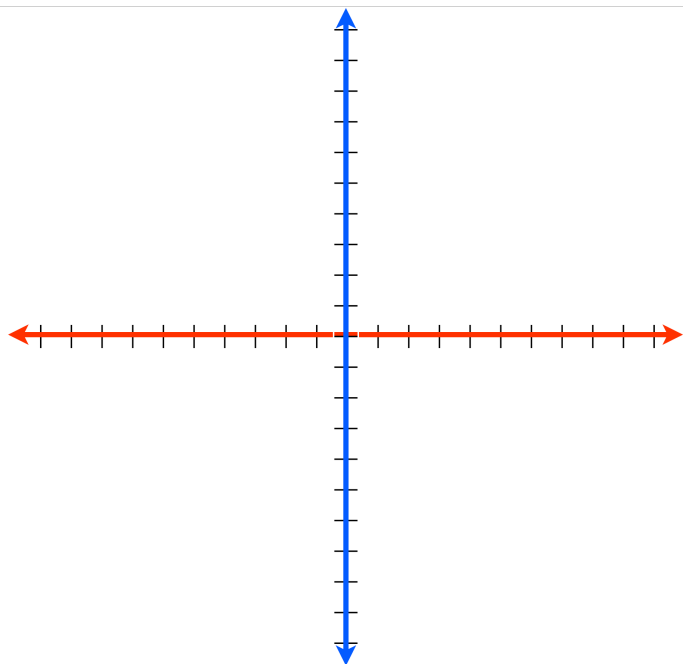
$$y = -(x - 4)^2 + 1$$



Absolute Value Function

$$y = |x|$$

$$y = -|x + 2| - 4$$



Given Function $y = f(x)$, then the equation...

$$y = a \cdot f(x)$$

where $a < 0$ (a is negative), causes a reflection over the x -axis.