

Parent Functions

The **simplest function** with defining characteristics for the family

1. Constant Function

$$f(x) = c$$

3. Quadratic Function

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

5. Square Root Function

$$f(x) = \sqrt{x}$$

2. Linear Function

$$f(x) = x$$

4. Absolute Value Function

$$f(x) = |x|$$

6. Cubic Function

$$f(x) = x^3$$

Constant Function

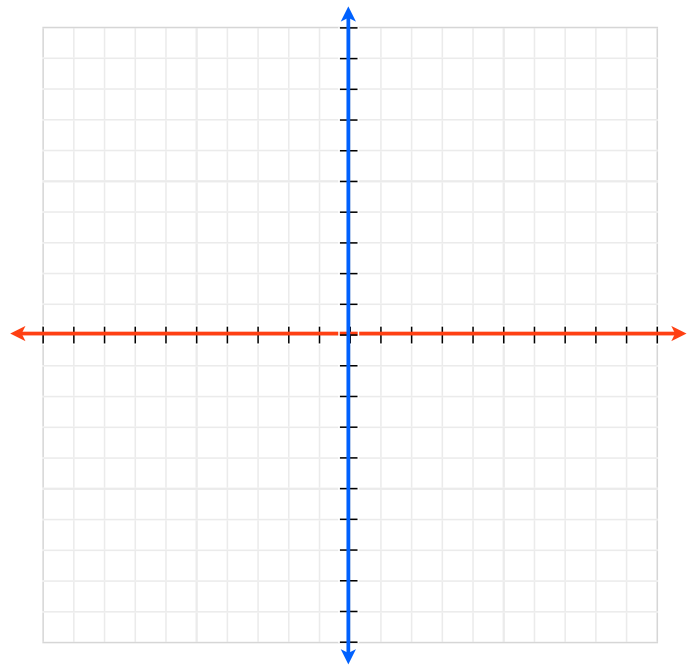
$$f(x) = c$$

$$y = c$$

Domain:

Range:

y-intercept:



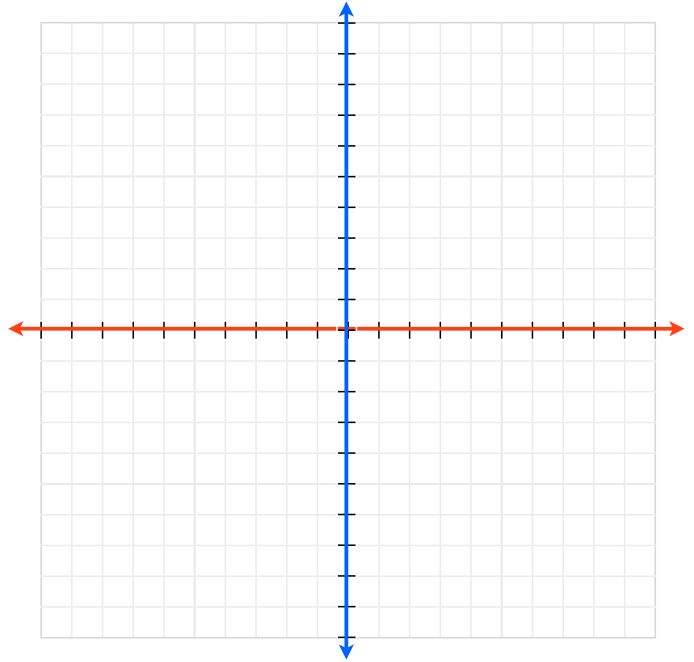
Linear Function
Identity Function

$$f(x) = x$$

$$y = x$$

Domain: Range:

y -intercept:



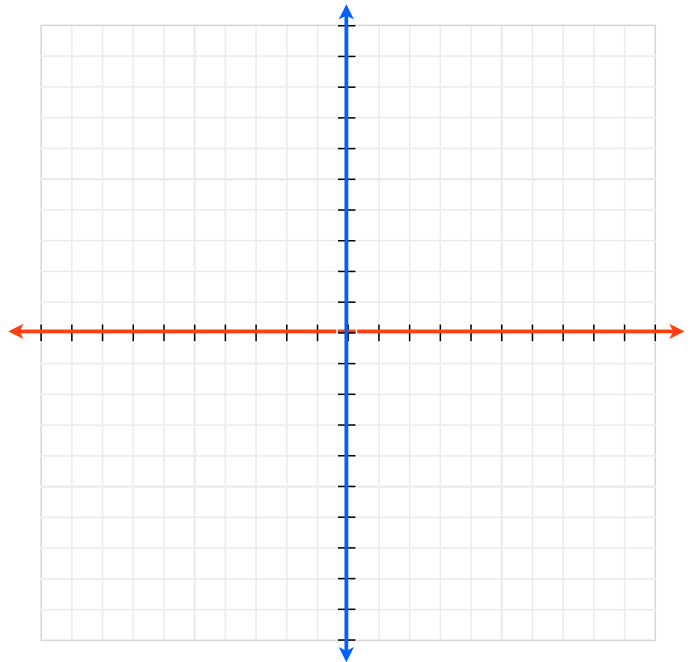
Quadratic Function

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

$$y = x^2$$

Domain: Range:

vertex:



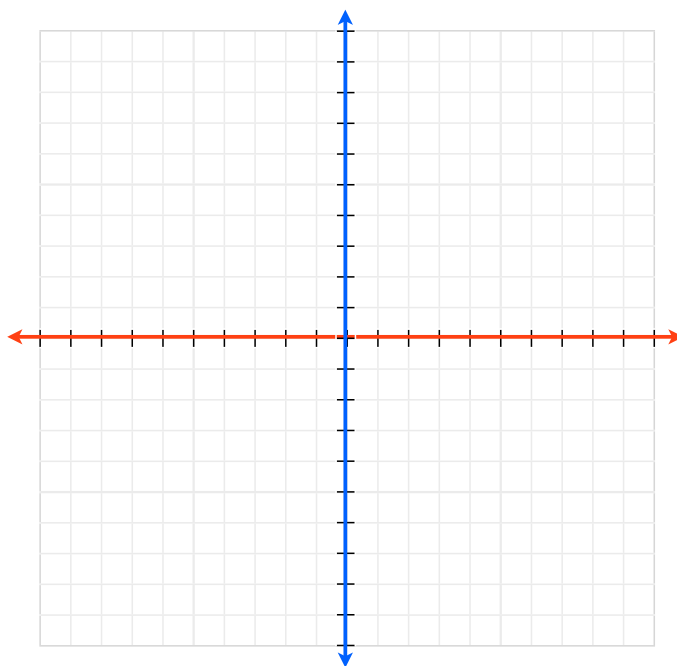
Absolute Value Function

$$f(x) = |x|$$

$$y = |x|$$

Domain: Range:

vertex:



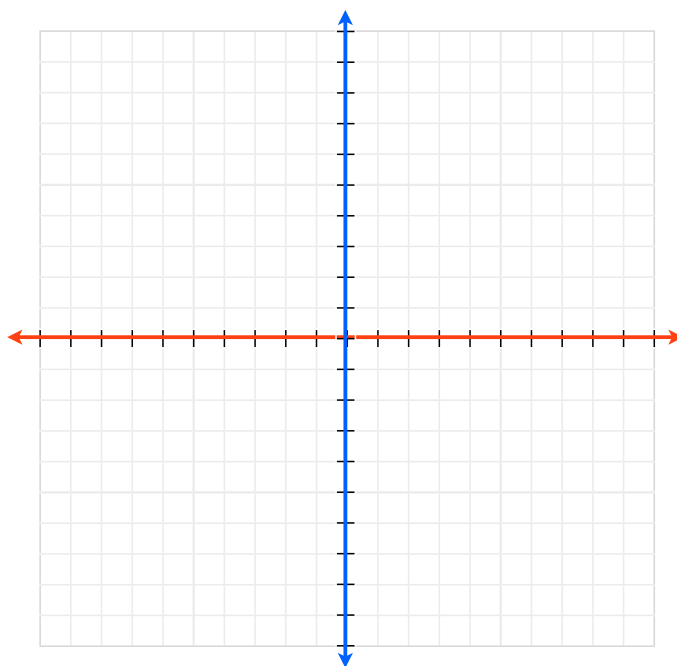
Square Root Function

$$f(x) = \sqrt{x}$$

$$y = \sqrt{x}$$

Domain: Range:

starting point:



Cube Function

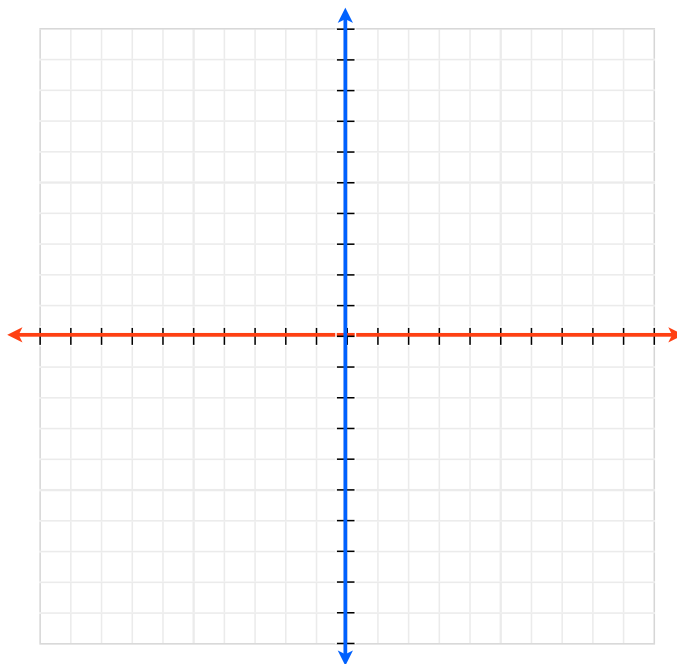
$$f(x) = x^3$$

$$y = x^3$$

Domain:

Range:

y-intercept:



Parent Functions

The **simplest function** with defining characteristics for the family

1. Constant Function

$$f(x) = c$$

3. Quadratic Function

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

5. Square Root Function

$$f(x) = \sqrt{x}$$

2. Linear Function

$$f(x) = x$$

4. Absolute Value Function

$$f(x) = |x|$$

6. Cubic Function

$$f(x) = x^3$$