

Parent Functions

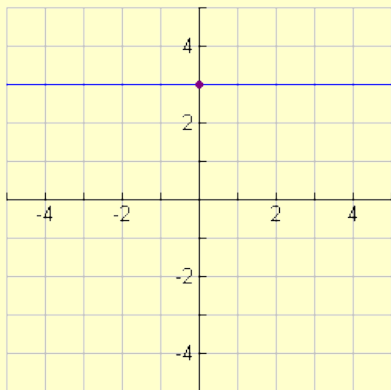
Constant Function:

Equation: $f(x) = c$

Properties:

- Domain: $(-\infty, \infty)$
- Range: $\{c\}$
- Symmetry: even
- Notes: slope is 0

Graph:



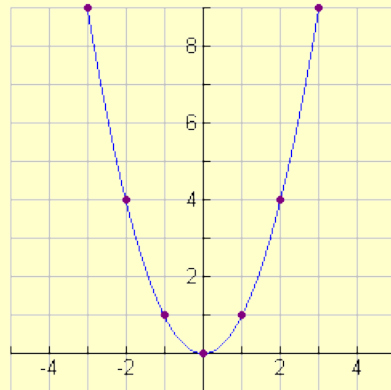
Square Function

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

Properties:

- Domain: $(-\infty, \infty)$
- Range: $[0, \infty)$
- Symmetry: even
- Notes: global min at $x = 0$

Graph:



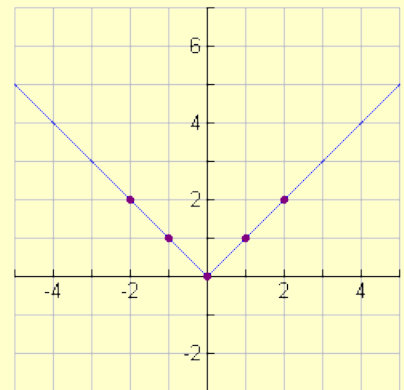
Absolute Value Function

Equation: $f(x) = |x|$

Properties:

- Domain: $(-\infty, \infty)$
- Range: $[0, \infty)$
- Symmetry: even
- Notes: global min at $x = 0$

Graph:



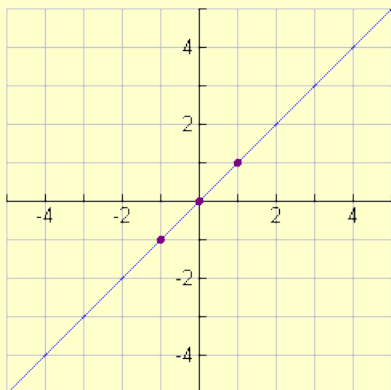
Identity Function

Equation: $f(x) = x$

Properties:

- Domain: $(-\infty, \infty)$
- Range: $(-\infty, \infty)$
- Symmetry: odd
- Notes: slope is 1

Graph:



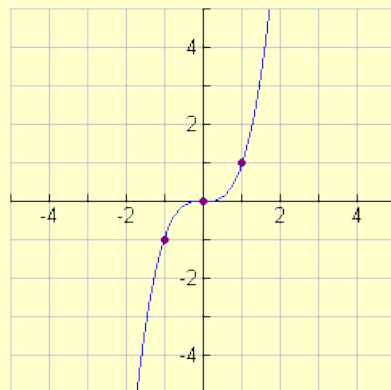
Cube Function

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

Properties:

- Domain: $(-\infty, \infty)$
- Range: $(-\infty, \infty)$
- Symmetry: odd
- Notes: no max. or min.

Graph:



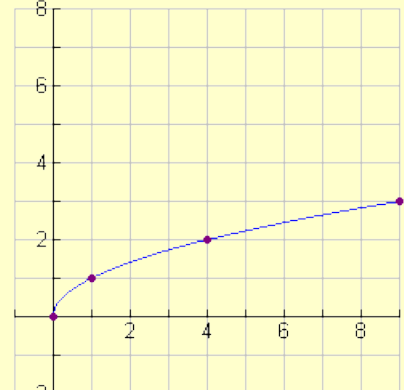
Square Root Function

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

Properties:

- Domain: $[0, \infty)$
- Range: $[0, \infty)$
- Symmetry: neither
- Notes: global min at $x = 0$

Graph:



Cube Root Function

Equation: $f(x) = \sqrt[3]{x}$

Properties:

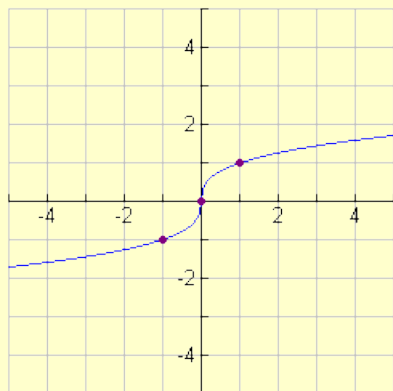
Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

Symmetry: odd

Notes: no max. or min.

Graph:



Reciprocal Function

Equation: $f(x) = \frac{1}{x}$

Properties:

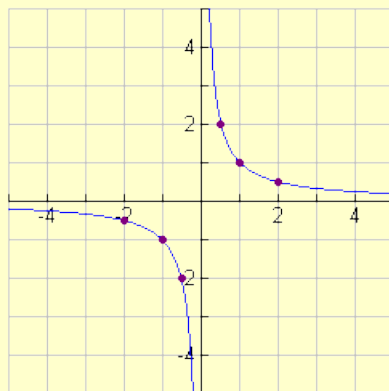
Domain: $(-\infty, 0)$ and $(0, \infty)$

Range: $(-\infty, 0)$ and $(0, \infty)$

Symmetry: odd

Notes: no max. or min.

Graph:



Greatest Integer Function

Equation: $f(x) = \text{int}(x) = \lfloor x \rfloor$

Properties:

Domain: $(-\infty, \infty)$

Range: $\{y | y \in \mathbb{Z}\}$

Symmetry: neither

Notes: no max. or min.

Graph:

