

Basic Functions (“Toolkits”) — 3.3 and 3.4

Even Function

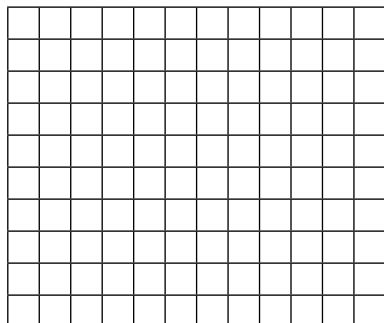
A function, f , is an even function if it is symmetric about the y-axis and if $f(-x) = f(x)$ for all x in the domain of f . In other words, if a point (a, b) is on the graph of f , then the point $(-a, b)$ is on the graph of f .

Odd Function

A function, f , is an odd function if it is symmetric about the origin and if $f(-x) = -f(x)$ for all x in the domain of f . In other words, if a point (a, b) is on the graph of f , then the point $(-a, -b)$ is on the graph of f .

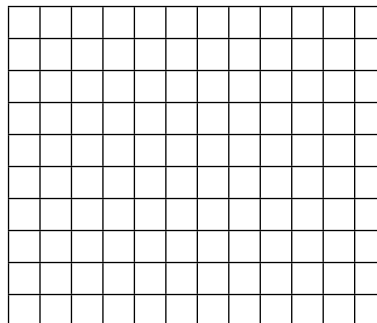
1. Graph $f(x) = c$, where c is a constant.

Name: Constant Function
Domain:
Range:
Odd, Even or Neither:
Shape:



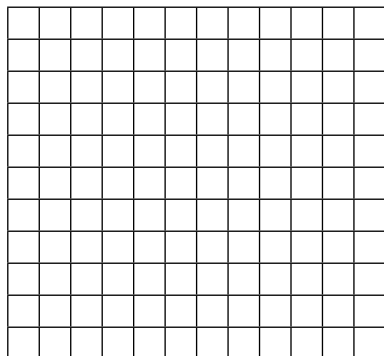
2. Graph $f(x) = x$.

Name: Identity Function
Domain:
Range:
Odd, Even or Neither:
Shape:



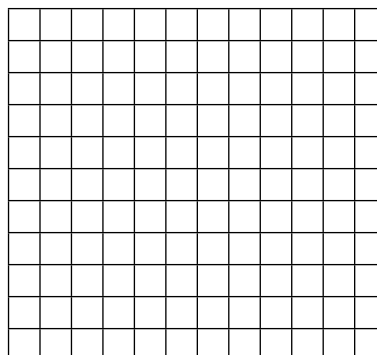
3. Graph $f(x) = |x|$.

Name: Absolute Value Function
Domain:
Range:
Odd, Even or Neither:
Shape:



4. Graph $f(x) = x^2$.

Name: Squaring Function
Domain:
Range:
Odd, Even or Neither:
Shape:



5. Graph $f(x) = x^3$.

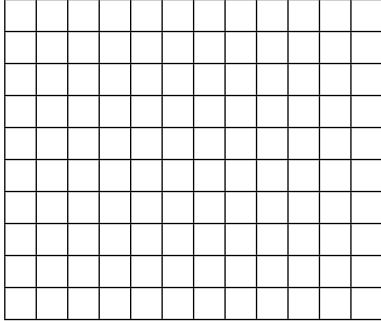
Name: Cubing Function

Domain:

Range:

Odd, Even or Neither:

Shape:



6. Graph $f(x) = \sqrt{x}$.

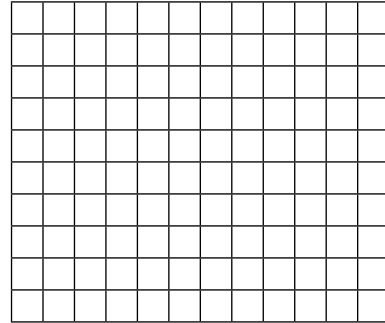
Name: Square Root Function

Domain:

Range:

Odd, Even or Neither:

Shape:



7. Graph $f(x) = \frac{1}{x}$.

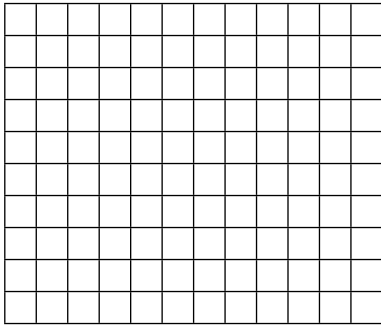
Name: Reciprocal Function

Domain:

Range:

Odd, Even or Neither:

Shape:



8. Graph $f(x) = \|x\|$.

Name: Greatest Integer Function

Domain:

Range:

Odd, Even or Neither:

Shape:

