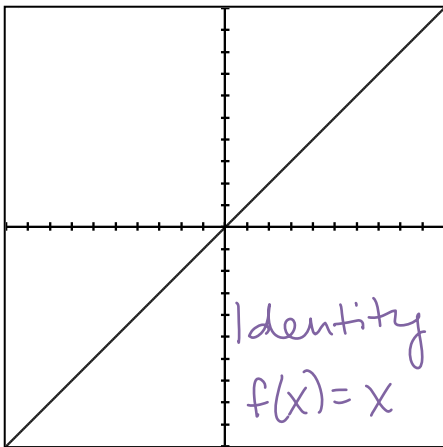


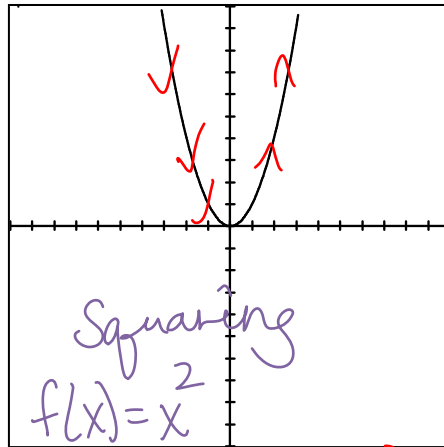
Precalculus

1.3 11 Basic Functions

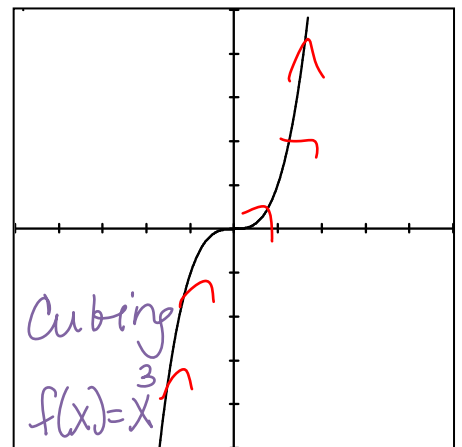
Name \_\_\_\_\_



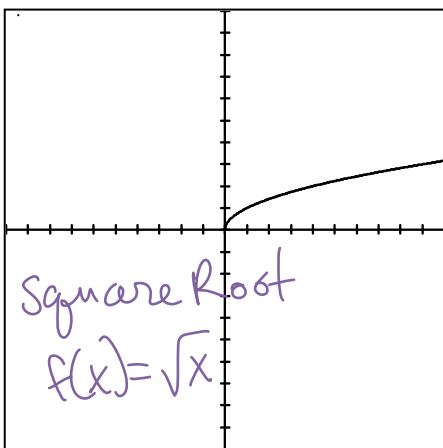
Increasing  $(-\infty, \infty)$   
Unbounded  
Odd



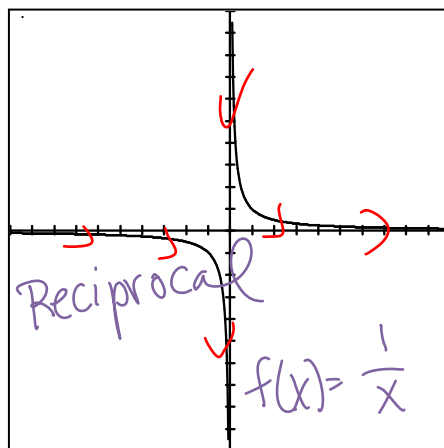
Domain  $(-\infty, \infty)$   
Range  $[0, \infty)$   
Inc  $[0, \infty)$   
Dec  $(-\infty, 0]$   
Abs Min 0 at  $x=0$   
Bounded Below  
Even



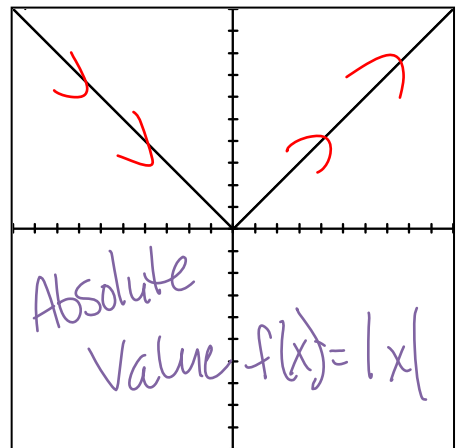
Domain  $(-\infty, \infty)$   
Range  $(-\infty, \infty)$   
Inc  $(-\infty, \infty)$   
Dec  $\emptyset$   
Unbounded  
Odd



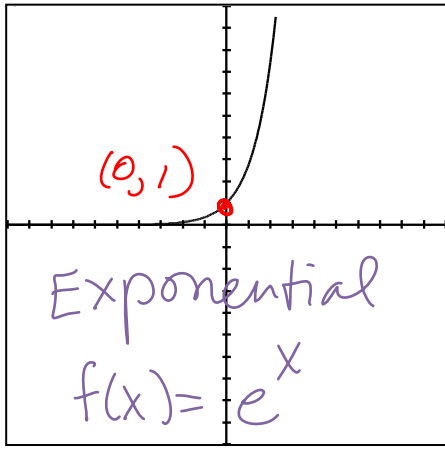
Domain  $[0, \infty)$   
Range  $[0, \infty)$   
Inc.  $[0, \infty)$   
Dec.  $\emptyset$   
Even/Odd/Neither



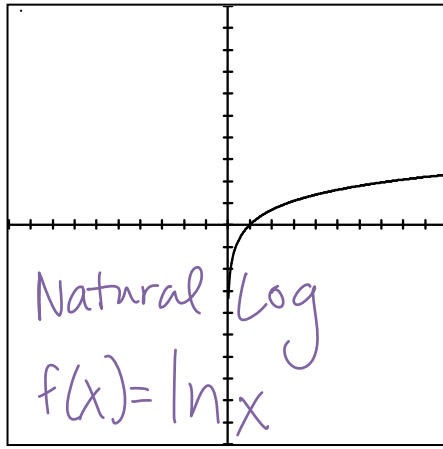
VA:  $x=0$   
Inc.  $\emptyset$   
Dec.  $(-\infty, 0) \cup (0, \infty)$   
H.A.  $y=0$   
Even/Odd/Neither



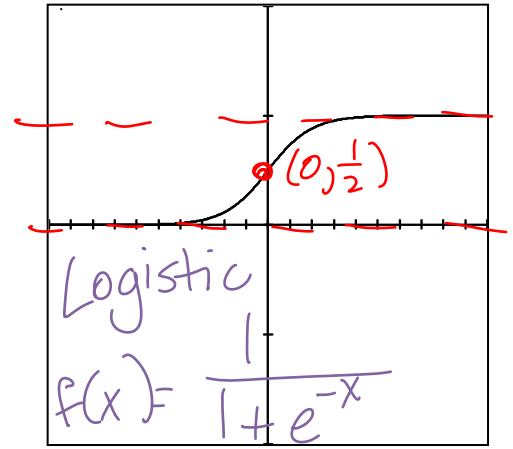
Inc.  $[0, \infty)$   
Dec.  $(-\infty, 0]$   
Abs. Min  $(0, 0)$   
Even/Odd/Neither



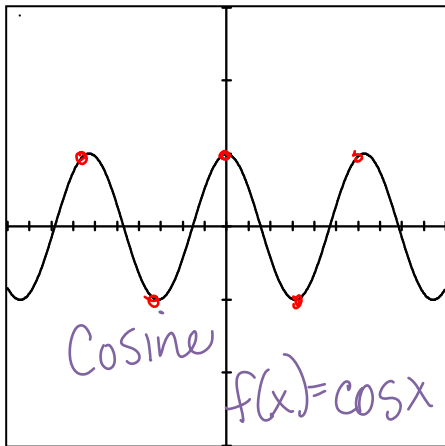
H.A.  $y = 0$   
 No V.A.



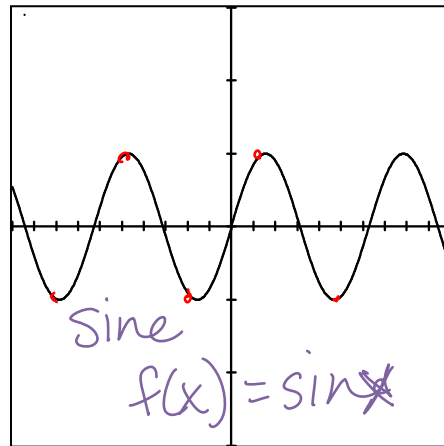
V.A.  $x = 0$   
 No H.A.



H.A.  $y = 0$   
 $y = 1$   
 No V.A.



Bounded  
 Even



Bounded  
 Odd

Identity Function

$$f(x) = x$$

Squaring Function

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

Cubing Function

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

Square Root Function

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

Reciprocal Function

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

Exponential Function

$$f(x) = e^x$$

Natural Log Function

$$f(x) = \ln x$$

Sine Function

$$f(x) = \sin x$$

Cosine Function

$$f(x) = \cos x$$

Absolute Value Function

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

Logistic Function

$$f(x) = \frac{1}{1 + e^{-x}}$$