

The **Common Log** is a special **logarithm** that has a base of **10**.

$$\log_{10} x$$

$$\log x$$

Common Log Form

vs.

Exponential Form

$$\log x = y$$



$$x = 10^y$$

Logarithmic Form

Exponential Form

The **Common Log** is a special **logarithm** that has a base of **10**.

$$\log 10 = 1$$

$$\log x$$

Common Log Form

vs.

Exponential Form

$$\log x = y$$



$$x = 10^y$$

Logarithmic Form

Exponential Form

Evaluating Common Logs

$$\log 3$$

$$\log 9$$

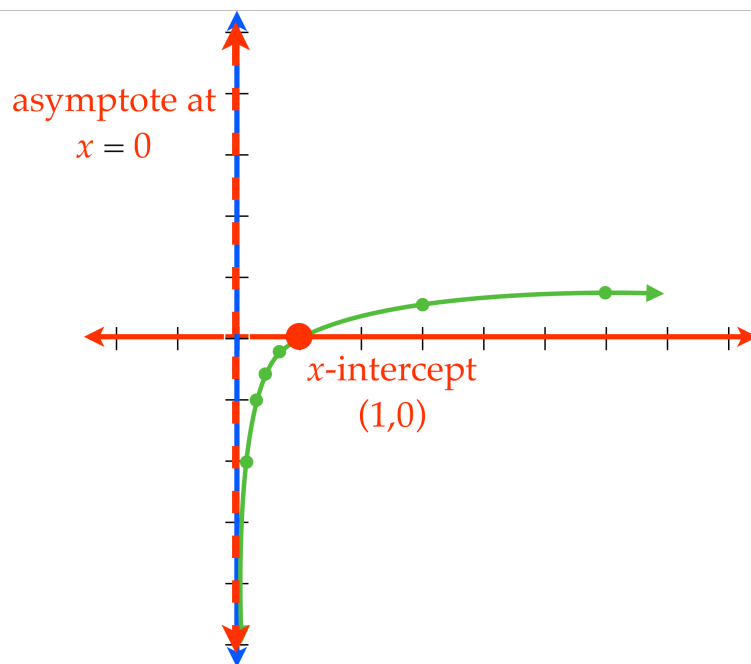
$$\log -2$$

The domain of Common Logs are all values of $x > 0$.

$$f(x) = \log x$$

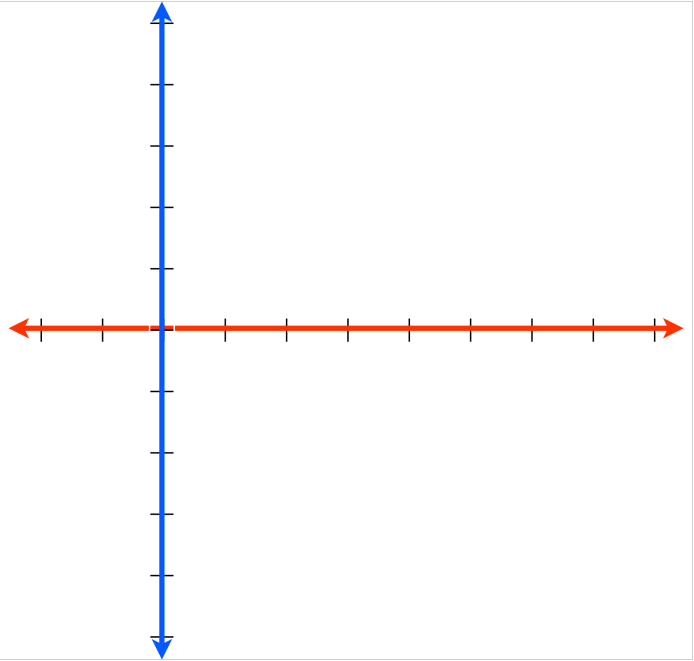
x	$f(x)$
0.01	-2
0.1	-1
0.5	-0.3
0.75	-0.1
1	0
3	0.5
6	0.8

The domain of Common Logs
are all values of $x > 0$.



Graph the following using transformations

$$f(x) = \log(x + 1) - 2$$



Graph the following using transformations

$$f(x) = -\log x + 3$$

