

Name _____

EXPONENTIAL FUNCTIONS

Construct a table of values and graph each of the following exponential functions.

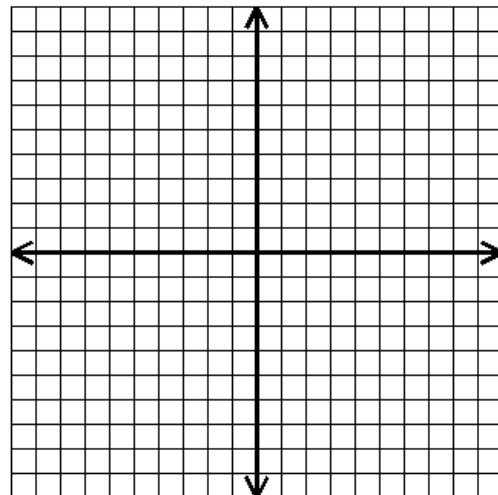
1. $f(x) = 2^x$

x	y
-2	
-1	
0	
1	
2	

Asymptote: _____

Domain: _____

Range: _____



What happens to the function (y-values) as the value of x increases? _____

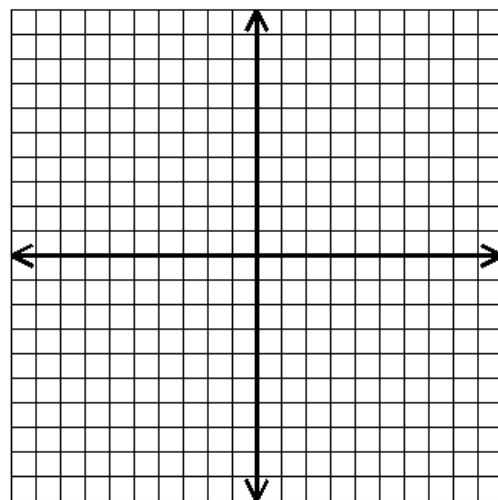
2. $f(x) = \left(\frac{1}{2}\right)^x$

x	y
-2	
-1	
0	
1	
2	

Asymptote: _____

Domain: _____

Range: _____



What happens to the function (y-values) as the value of x increases? _____

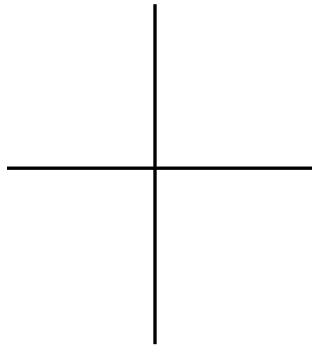
In the exponential function $y = b^x$

If $0 < b < 1$, the graph is _____ from left to right.

If $b > 1$, the graph is _____ from left to right.

Classify each of the following exponential functions as increasing or decreasing, identify domain and range, and identify asymptote.

3. $y = 5^x$



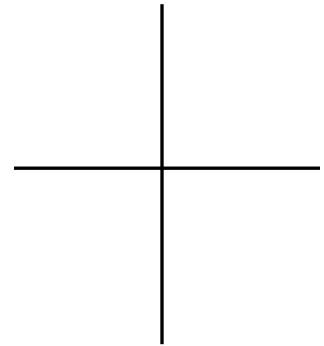
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

4. $y = (0.4)^x$



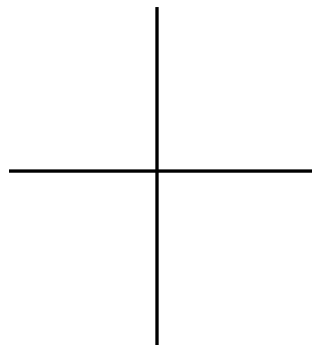
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

5. $y = (0.25)^x$



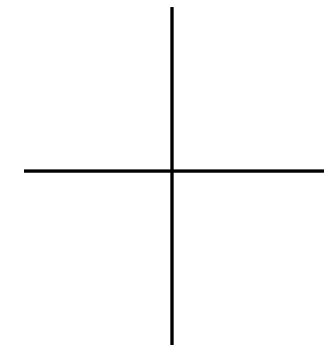
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

6. $y = (2.5)^x$



Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____