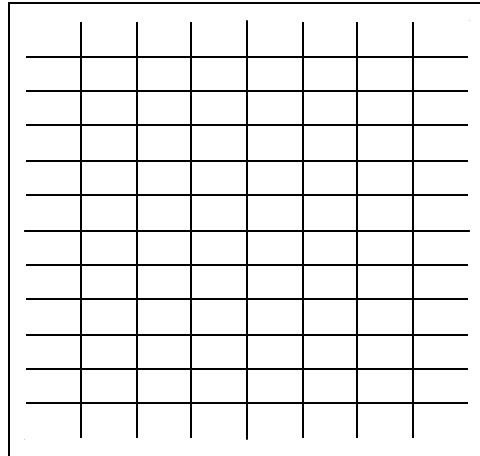


1. For each of the following, fill in the chart. Then plot the points and connect them in a smooth, continuous curve.

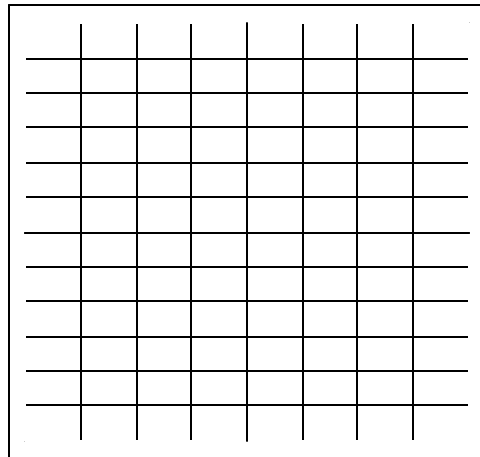
(a)

x	$f(x) = 2^x$
-3	
-2	
-1	
0	
1	
2	
3	



(b)

x	$f(x) = 3^x$
-3	
-2	
-1	
0	
1	
2	
3	



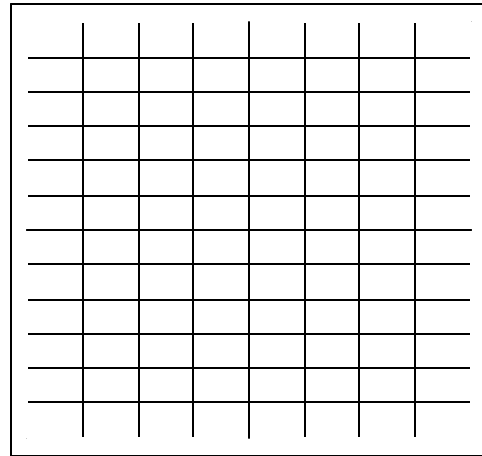
Based on the graphs above, determine each of the following (if they exist) for the function $f(x) = a^x$, $x > 0$,

- (1) Domain = _____ Range = _____.
- (2) x-intercept(s) = _____ y-intercept = _____.
- (3) Horizontal asymptote _____ Vertical asymptote _____.
- (4) Points (0,), (1,), and (-1,).
- (5) Is the function increasing or decreasing? _____
- (6) Is the function a one-to-one function? _____

2. For each of the following, fill in the chart. Then plot the points and connect them in a smooth, continuous curve.

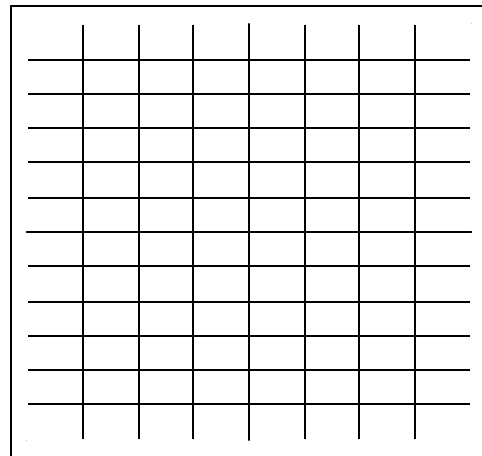
(a)

x	$f(x) = \left(\frac{1}{2}\right)^x$
-3	
-2	
-1	
0	
1	
2	
3	



(b)

x	$f(x) = \left(\frac{1}{3}\right)^x$
-3	
-2	
-1	
0	
1	
2	
3	



Based on the graphs above, determine each of the following (if they exist) for the function $f(x) = a^x$, $0 < x < 1$,

- (1) Domain = _____ Range = _____.
- (2) x-intercept(s) = _____ y-intercept = _____.
- (3) Horizontal asymptote _____ Vertical asymptote _____.
- (4) Points (0,), (1,), and (-1,).
- (5) Is the function increasing or decreasing? _____
- (6) Is the function a one-to-one function? _____

Homework:

4.2 (p. 297)/ #1, 5, 7, 11 - 21 odd, 29, 39, 41, 43, 49, 55, 61, 65, 67, 73(a), (b), (c)