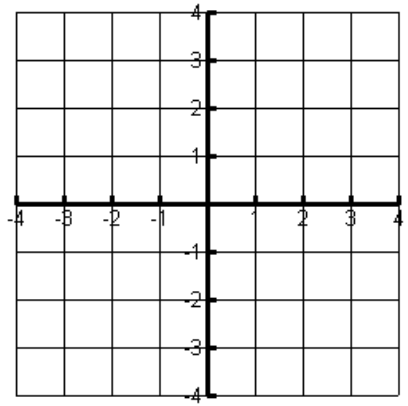
Math 103 - Introduction to section 9.3 – Logarithmic Functions

Problem 1: 1) Construct a table of values for the function $f(x) = 2^x$

2) Plot the ordered pairs and graph the function.
3) Construct the table for the inverse function and graph on the same coordinate system. We don't know what this function is yet.

X	$y = f(x) = 2^x$
-2	
-1	
0	
1	
2	



X	$y = f^{-1}(x)$

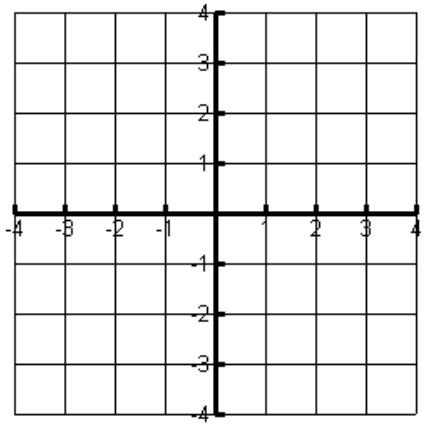
4) Complete the following, the left column is review. The right column can be answered by looking at graph of $y = f^{-1}(x)$

For the exponential function $f(x) = 2^x$	For the inverse function
Domain	**Domain**
Range	**Range**
x-intercept	**x-intercept**
y-intercept	**y-intercept**
asymptote	**Asymptote**
Increasing or decreasing?	**Increasing or decreasing?**

Problem 2: **1) Construct a table of values for the function** $f(x) = (1/2)^x$

2) Plot the ordered pairs and graph the function .
3) Construct the table for the inverse function and graph on the same coordinate system. We don't know what this function is yet.

X	$y = f(x) = (1/2)^x$
-2	
-1	
0	
1	
2	



X	$y = f^{-1}(x) = ...$

4) Complete the table. The left column is review; the right column can be answered by looking at the graph of $y = f^{-1}(x)$

For the exponential function $f(x) = (1/2)^x$	For the inverse function
Domain	**Domain**
Range	**Range**
x-intercept	**x-intercept**
y-intercept	**y-intercept**
asymptote	**Asymptote**
Increasing or decreasing?	**Increasing or decreasing?**