

Math D Unit 5 Activity - Graphing Exponential and Log Functions

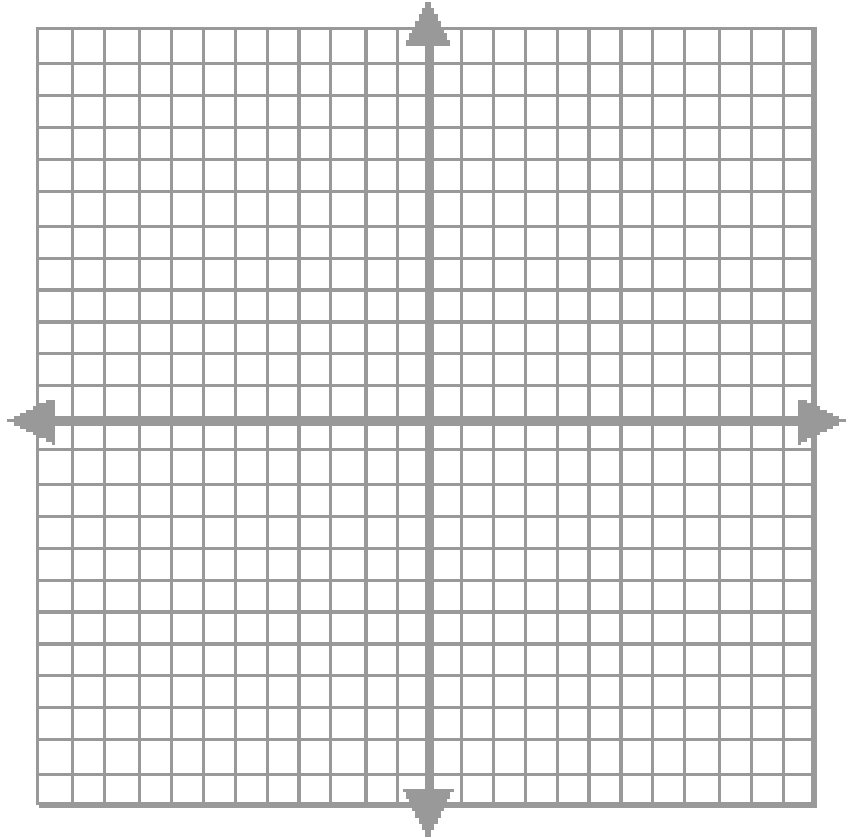
Complete the following tables and graph each function on the same coordinate plane. Include a scale on your graph and label each function.

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

x	2^x	y
-2	2^{-2}	$\frac{1}{4}$
-1		
0		
1		
2		
3		

$g(x) = \log_2 x$

x	$\log_2 x$	y
$\frac{1}{4}$	$\log_2 \frac{1}{4}$	-2
$\frac{1}{2}$		
1		
2		
4		
8		



What is the domain of $f(x)$? D:

What is the range of $f(x)$? R:

What is the domain of $g(x)$? D:

What is the range of $g(x)$? R:

Notice the x-values from the tables above are convenient values to use for these specific functions. Find convenient x-values to graph the functions on the back of this page.

Choose values for x that are representative of the entire domain of each function. The first table has been started.

Create a table for each function before graphing. Choose a scale for the graph that makes sense based on the table of values.

Name: _____

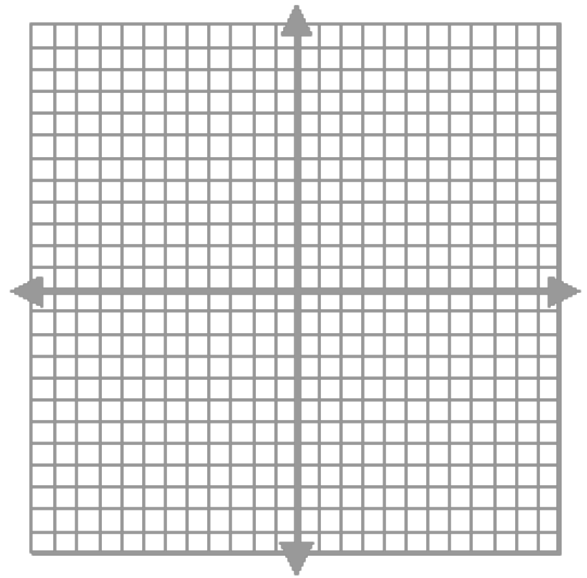
Due Date: _____

ILP # _____

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

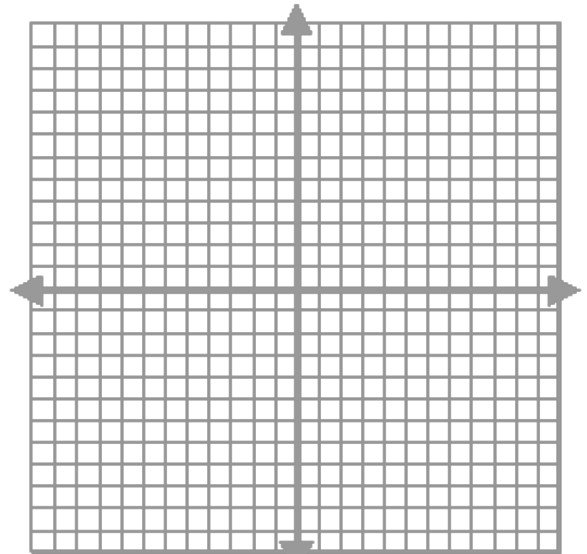
$g(x) = \log_3 x$

x	3^x	y
-2		



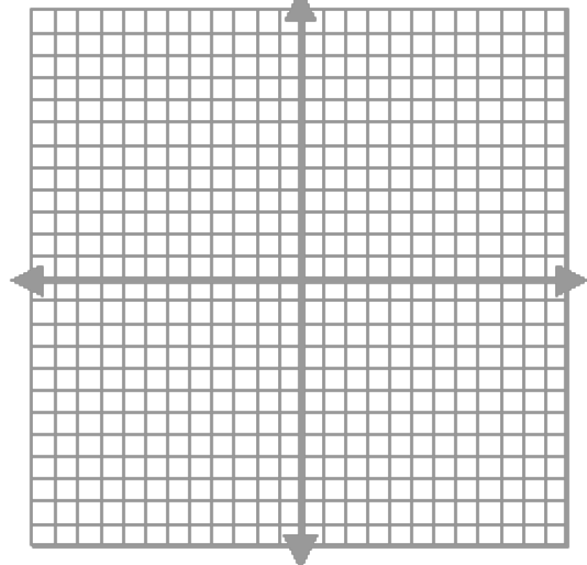
3. $f(x) = 10^x$

$g(x) = \log x$



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

$g(x) = \ln x$



5. If asked to graph a logarithmic function, how will you choose the x-values required to create a complete picture of the graph?