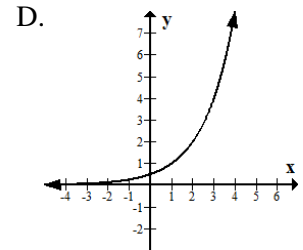
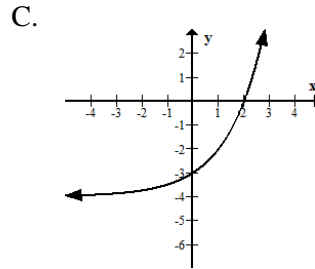
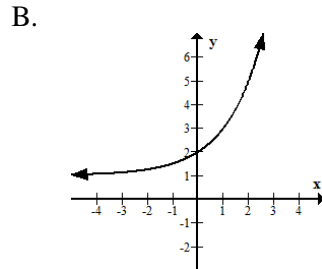
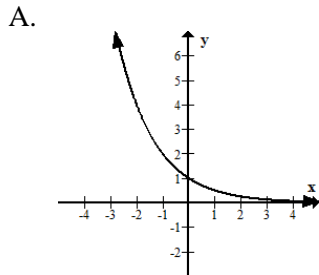


Secondary Math III
Exponential Functions
Assignment #9.1

Name _____
 Period _____

In problems 1-4, use the graph of $y = 2^x$ to match the function with its graph (graphs are labeled A-D). Write the letter of the graph in the box next to the function.

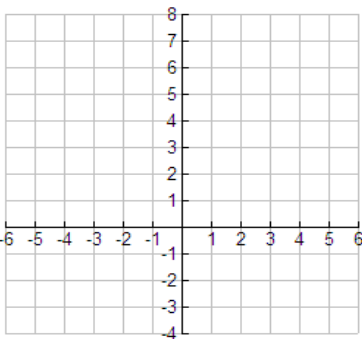
1. $f(x) = 2^{x-1}$
 2. $f(x) = 2^{-x}$
 3. $f(x) = 2^x - 4$
 4. $f(x) = 2^x + 1$



Graph the exponential functions by hand. State transformations and fill in x/y tee chart. List the Domain, Range, y-intercept and the equation of the horizontal asymptote. Show the horizontal asymptote on the graph as a dashed line. Finally, decide whether the graph is an Exponential Growth, Decay, or Neither.

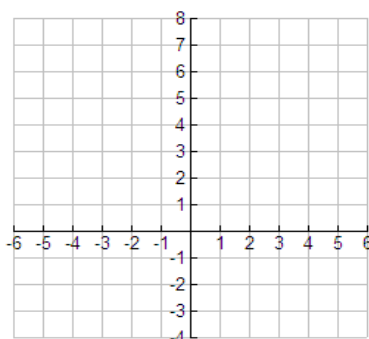
5. $f(x) = 3^x$

x	y
-1	
0	
1	
2	



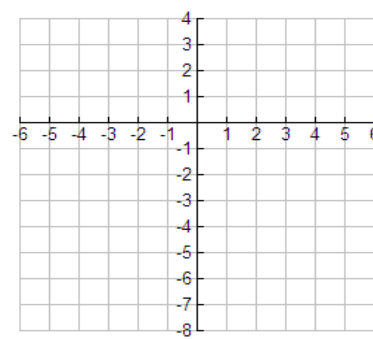
6. $g(x) = 3^{-x} + 1$

Transformations:



7. $h(x) = -3^{x+1}$

Transformations:



Domain _____

Range _____

y-intercept _____

HA _____

Domain _____

Range _____

y-intercept _____

HA _____

Domain _____

Range _____

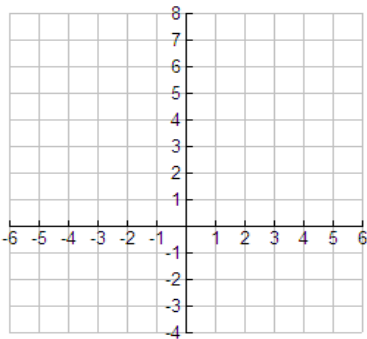
y-intercept _____

HA _____

Exponential Growth, Decay, Neither? Exponential Growth, Decay, Neither? Exponential Growth, Decay, Neither?

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

x	y
-2	
-1	
0	
1	

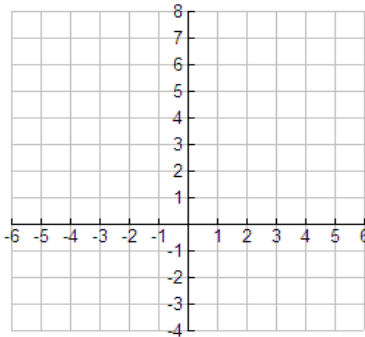


Domain _____
 Range _____
 y-intercept _____
 HA _____

Exponential Growth, Decay, Neither? Exponential Growth, Decay, Neither?

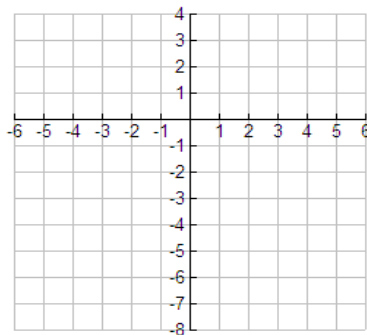
9. $y = \left(\frac{1}{2}\right)^{x-3}$

Transformations:



Domain _____
 Range _____
 HA _____

12. $g(x) = -e^{x+3}$
 Transformations:

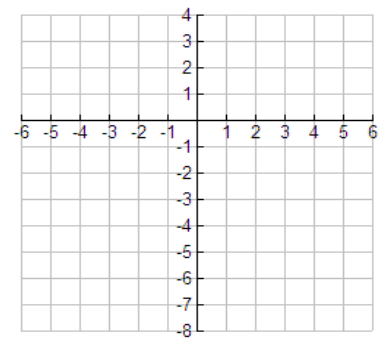


Domain _____
 Range _____
 HA _____

Exponential Growth, Decay, Neither? Exponential Growth, Decay, Neither?

10. $y = \left(\frac{1}{2}\right)^x - 3$

Transformations:

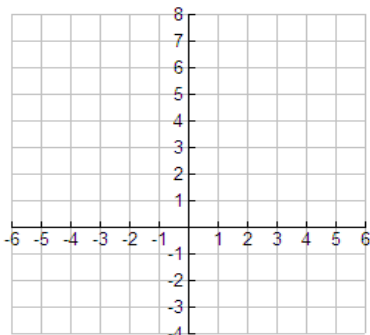


Domain _____
 Range _____
 y-intercept _____
 HA _____

Exponential Growth, Decay, Neither? Exponential Growth, Decay, Neither?

11. $y = e^x$

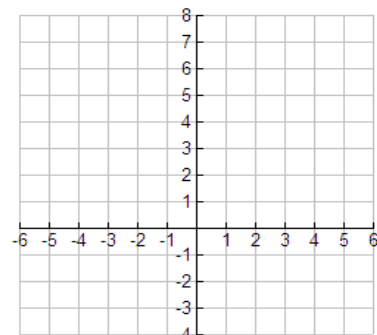
x	y
-1	
0	
1	
2	



Domain _____
 Range _____
 y-intercept _____
 HA _____

Exponential Growth, Decay, Neither?

13. $h(x) = e^{x-2} + 1$
 Transformations:



Domain _____
 Range _____
 HA _____

Exponential Growth, Decay, Neither?