MA 180 CHAPTER 4: Exponential and LOGARITHMIC FUNCTIONS
SECTION 4.3: Exponential FUNCTIONS

SKETCH THE GRAPH OF $f(x) = 3^x$

x	f(x)
-3	
-2	
-1	
0	
1	
2	
3	

Note in the table for each unit increase in x, the y value is tripled. Compare this to how a linear function is recognized in its table form.

For linear functions we had a slope addition property. For exponential functions we have a **Base Multiplier Property:** For an exponential function of the form $y = ab^x$, for each unit increase in x, the value of y is multiplied by b.

What size window do you need to graph the points in the table above?

X_{min} = _____ Y_{min} = _____ Graph using this window.

X_{max} = _____ Y_{min} = _____

x	$g(x) = 4\left(\frac{1}{2}\right)^x$	$h(x) = 7(2)^x$	$j(x) = -4\left(\frac{1}{2}\right)^x$	$k(x) = -(2)^x$
-3				
-2				
-1				
0				
1				
2				
3				