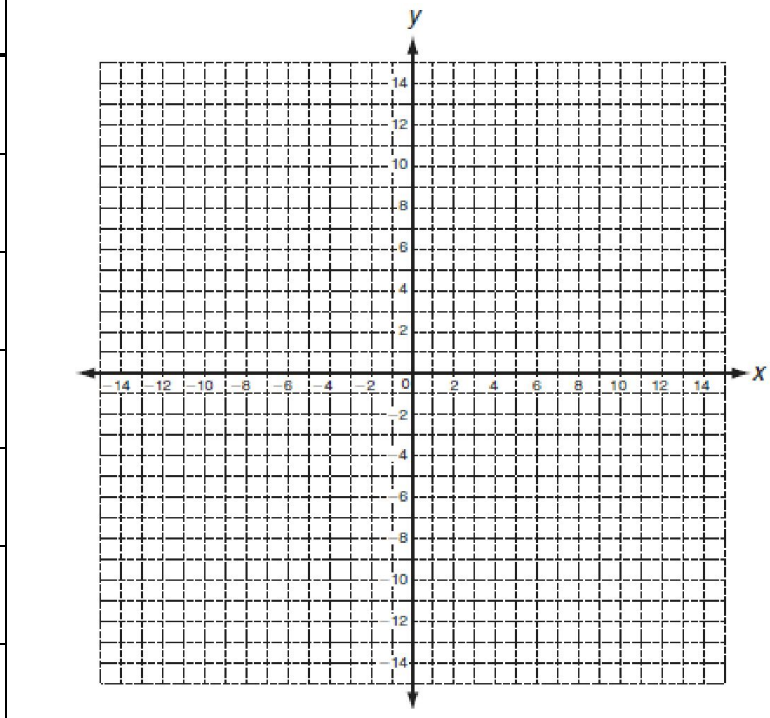
Exponential Function Worksheet

Complete the table for each exponential function, and then graph the exponential curve.

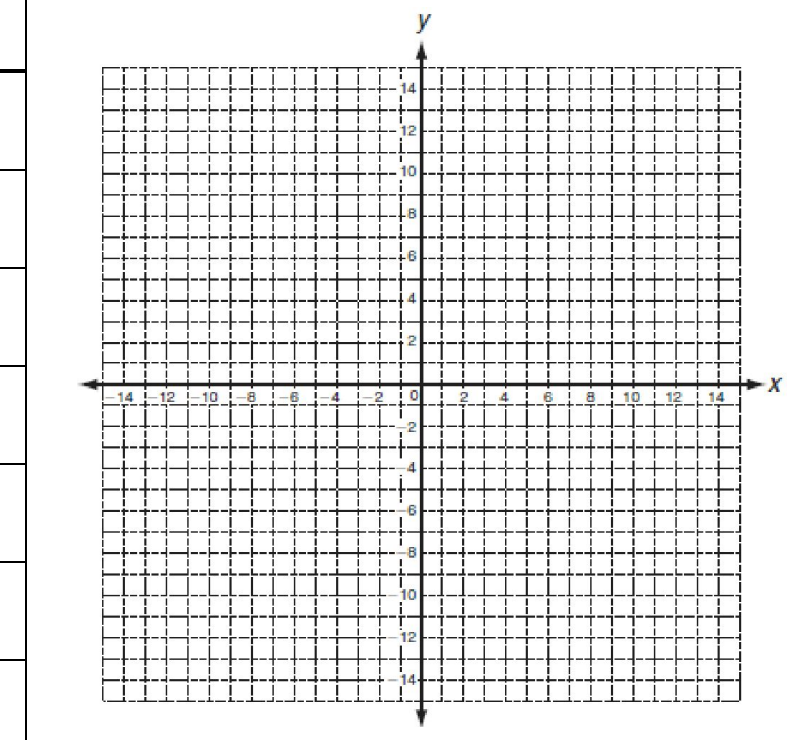
A.) $y = 2^x$

x	2^x	y
3		
2		
1		
0		
-1		
-2		
-3		



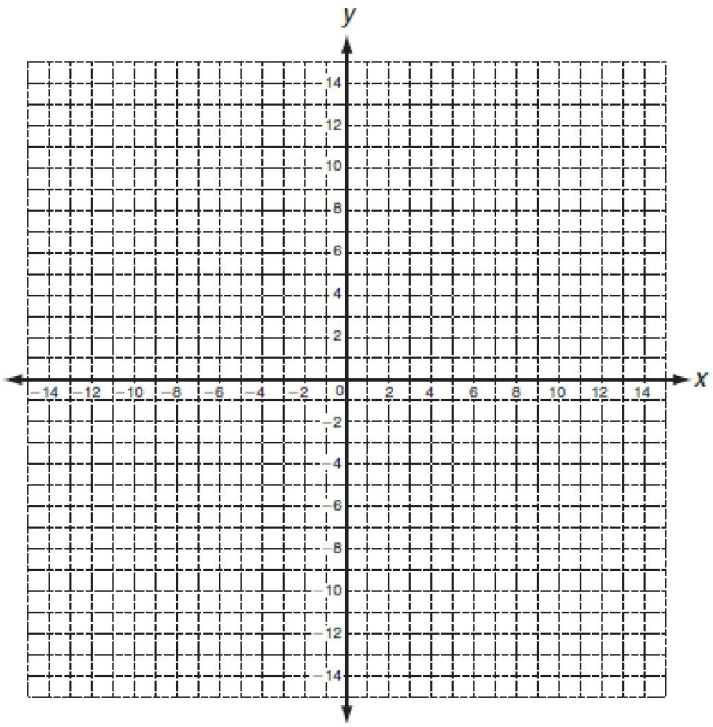
B.) $y = 2(2^x) - 4$

x	$2(2^x) - 4$	y
3		
2		
1		
0		
-1		
-2		
-3		



c.) $y = -\frac{1}{2}(2^x) + 3$

x		y
5		
3		
1		
0		
-1		
-2		
-3		



1. What value does each graph appear to approach as it begins to "flatten out"?

   Graph A: _____ Graph B: _____ Graph C: _____

2. Do you see this "asymptote" value in each corresponding equation?

3. If so, where?

4. In which direction does each graph "open"?

   Graph A: _____ Graph B: _____ Graph C: _____

5. Which value on each equation do you think determines the direction a graph opens?

6. What is the "leading coefficient" of each equation?

   Equation A: _____ Equation B: _____ Equation C: _____

7. Identify the leading coefficient and asymptote of : $y = a(b^x) + c$.