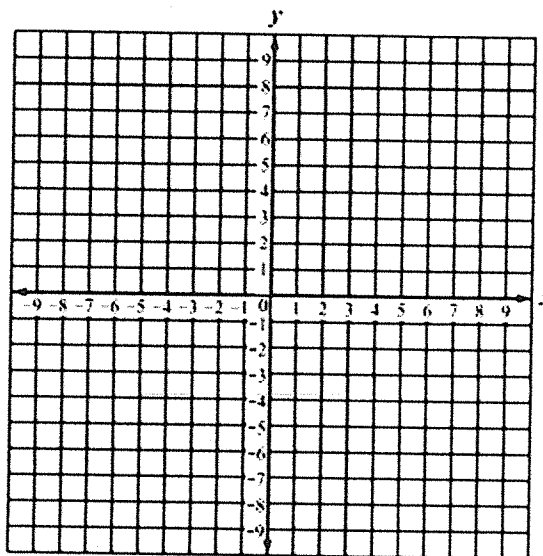


For each problem below, let $f(x) = 2^x$.

1. Is f a function? Why or why not?

2. Make a table of values and use them to graph $y = f(x)$.

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



3. What are the domain and range of f ? (Think carefully about whether f will ever actually touch the x -axis.)

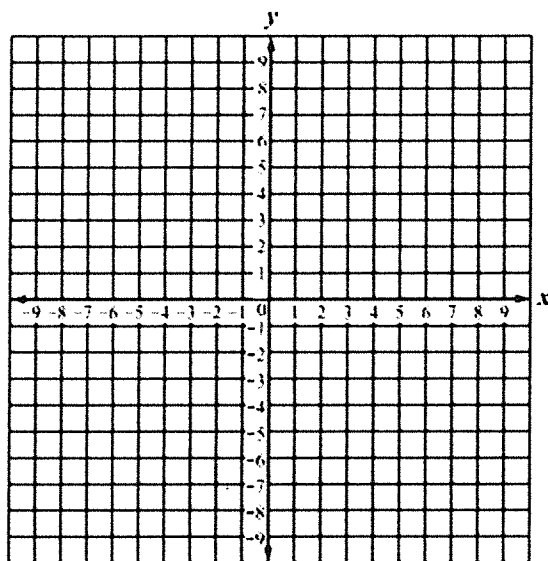
4. List any two points that lie on each new function by using your table from above and applying vertical and horizontal shifts.

a) $g(x) = 2^x - 7$

b) $h(x) = 2^{x-7}$

c) $k(x) = 2^{x+1} + 2$

5. a) Graph the function $k(x) = 2^{x+1} + 2$ without making a table. (Just shift the points from your first graph.)



b) What are the domain and range for k ?

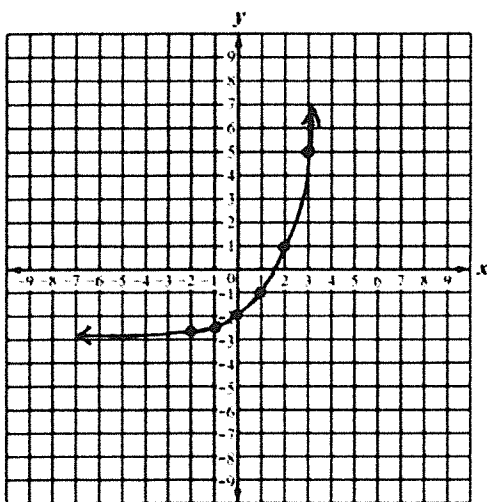
6. Without graphing, determine what the domain and range will be for:

a) $g(x) = 2^x - 7$

b) $h(x) = 2^{x-7}$

7. Two functions, i and j are drawn for you below. Write an expression with x for each one.

$i(x) =$



$j(x) =$

