

### UNIT 5 WORKSHEET 5

Find the key point for each of the following functions. Refer to the notes for an example.

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

B)  $f(x) = \left(\frac{1}{2}\right)^{x-5} + 1$

C)  $f(x) = -2^x + 3$

D)  $f(x) = \left(\frac{5}{3}\right)^{x+2} - 3$

E)  $f(x) = -\left(\frac{1}{2}\right)^{x+7} + 1$

F)  $f(x) = 3^{2x-3} + 2$

G)  $f(x) = \left(\frac{1}{5}\right)^{3-x} + 6$

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

I)  $f(x) = 5^{2-3x} - 4$

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

K)  $f(x) = -2(5)^{x+6} - 7$

L)  $f(x) = e^{x+3} - 4$

M)  $f(x) = -e^{x+2} + 2$

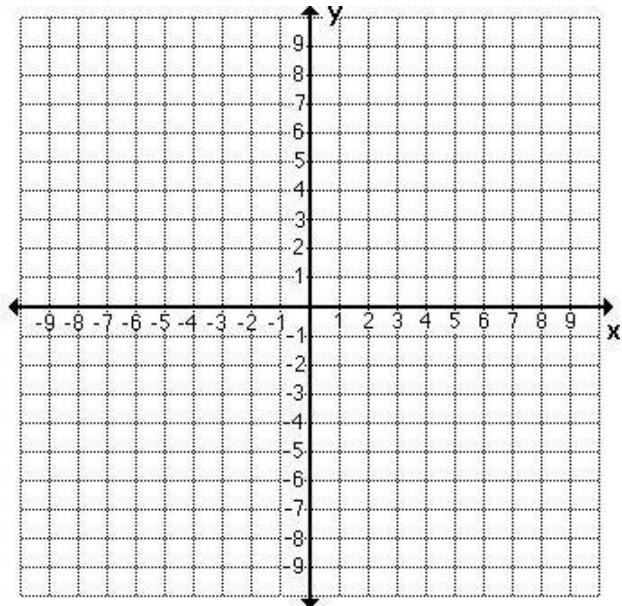
N)  $f(x) = -\left(\frac{1}{3}\right)^{2x+1} + 3$

O)  $f(x) = 2e^{x+3} + 5$

**Graph each of the following functions by setting up a table for x and y values. Label the key point for each of the functions. Do not worry about the intercepts right now.**

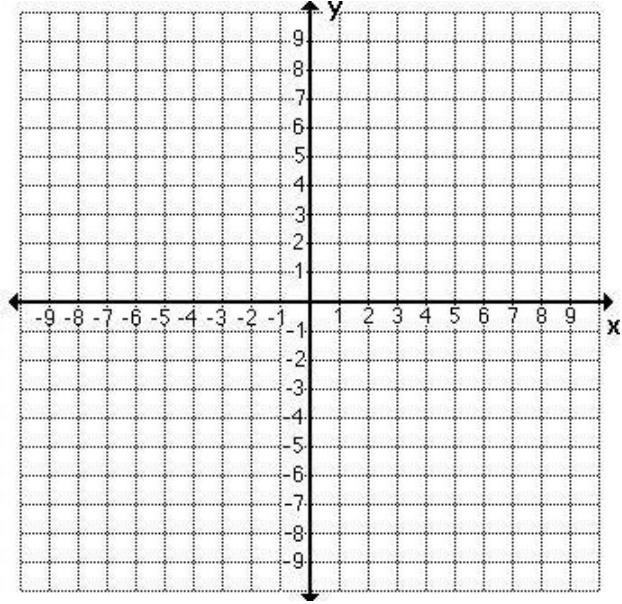
A)  $f(x) = 3^x$

$x$	$f_{(x)}$
-1	1/3
0	1
1	3
2	9
3	27
4	81
5	243
6	729
7	2187
8	6561
9	19683

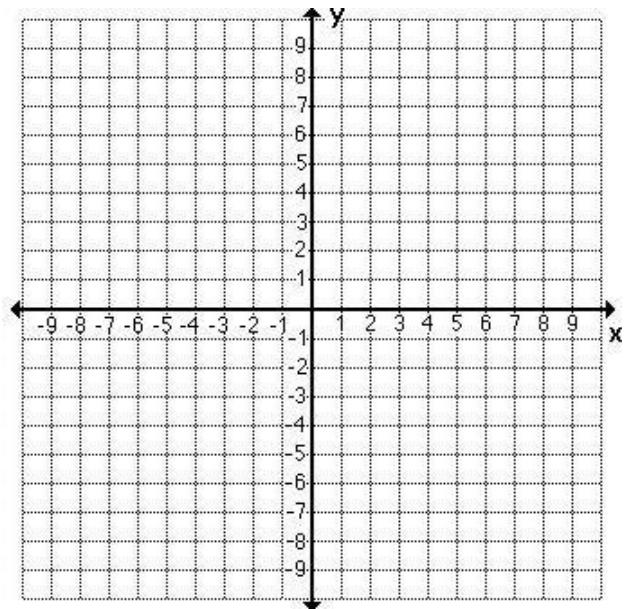
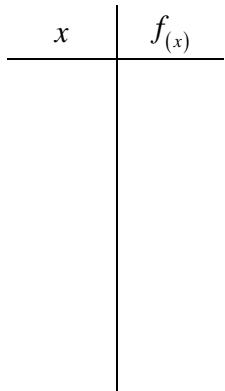


B)  $f(x) = \left(\frac{1}{2}\right)^x$

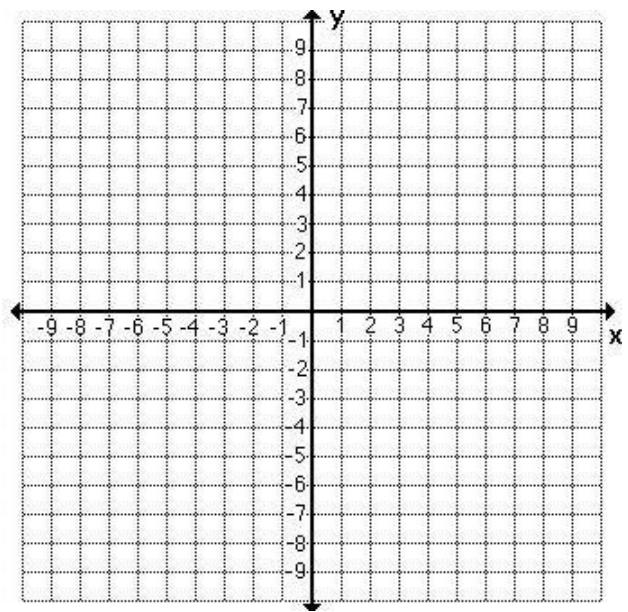
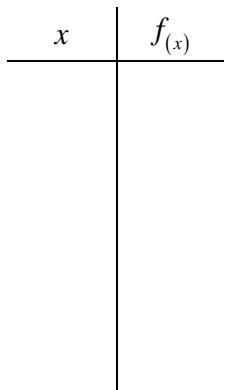
$x$	$f_{(x)}$
-1	1/2
0	1
1	1/2
2	1/4
3	1/8
4	1/16
5	1/32
6	1/64
7	1/128
8	1/256
9	1/512



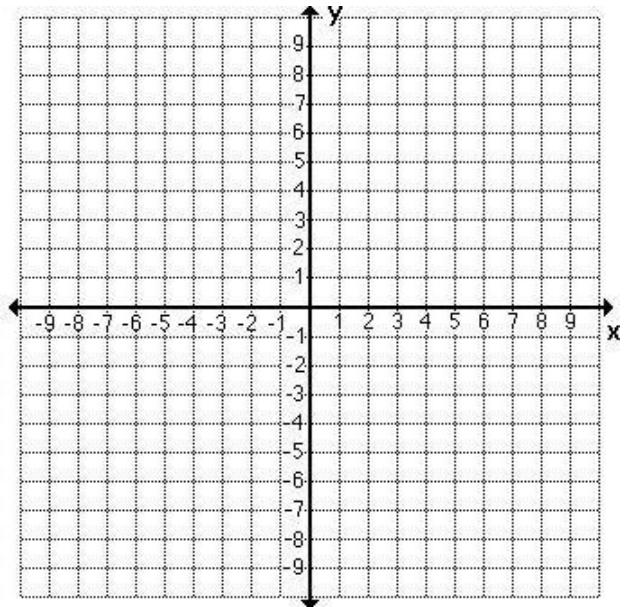
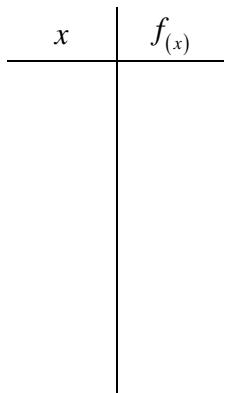
C)  $f(x) = 2^{x+1}$



D)  $f(x) = \left(\frac{1}{3}\right)^{x-3}$



E)  $f(x) = -2^x$



F)  $f(x) = 3^{x+2} + 3$

