Functions and Function Notation **NAME:**_____

DATE:_____ **PERIOD:**_____

1. Evaluate the following expressions given the functions below:

$g(x) = -3x + 1$ $f(x) = x^2 + 7$ $h(x) = \frac{12}{x}$ $j(x) = 2x + 9$

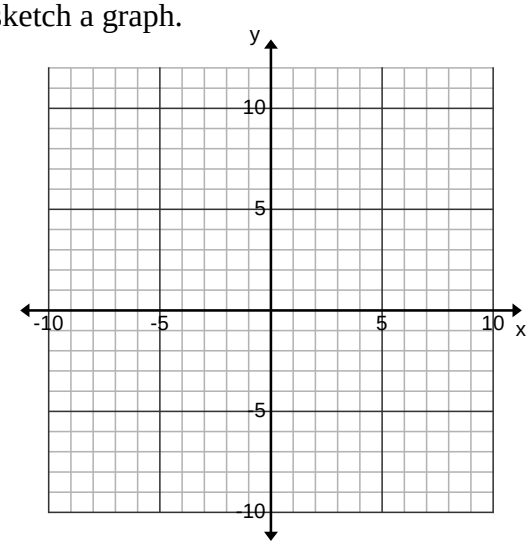
a. $g(10)$ = **b.** $f(3)$ = **c.** $h(-2)$ =

d. $j(7)$ = **e.** $h(a)$ **f.** $g(b+c)$

h. Find x if $g(x) = 16$ **i.** Find x if $h(x) = -2$ **j.** Find x if $f(x) = 23$

2. Given $f(x) = 3 - 4x$. Fill in the table and then sketch a graph.

x	$f(x)$
-2	
-1	
0	
1	
	-9



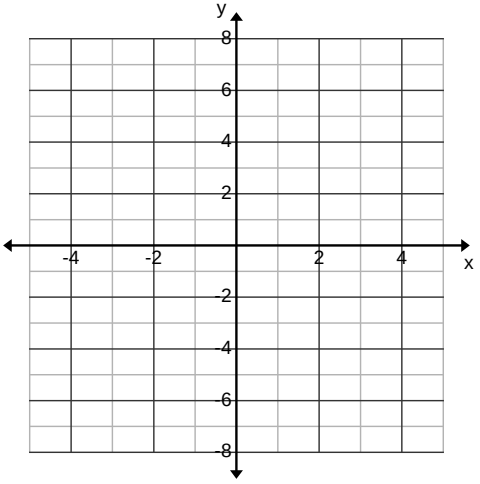
3. Translate the following statements into coordinate points, then plot them!

a. $f(-1) = 1$

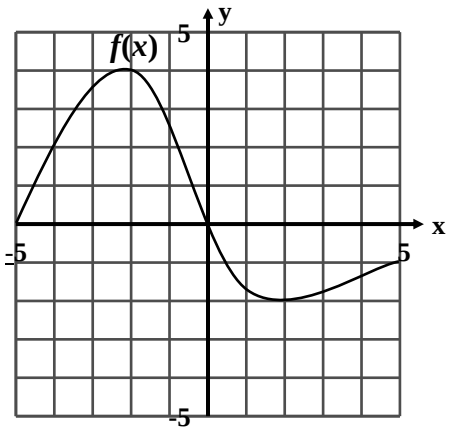
b. $f(2) = 7$

c. $f(1) = -1$

d. $f(3) = 0$



4. Given this graph of the function f(x):



Find:

a. $f(-4)$ = **b.** $f(0)$ = **c.** $f(3)$ =

d. $f(-5)$ = **e.** x when $f(x) = 2$ **f.** x when $f(x) = 0$

APPLICATION

5. Swine flu is attacking Porkopolis. The function below determines how many people have swine where t = time in days and S = the number of people in thousands.

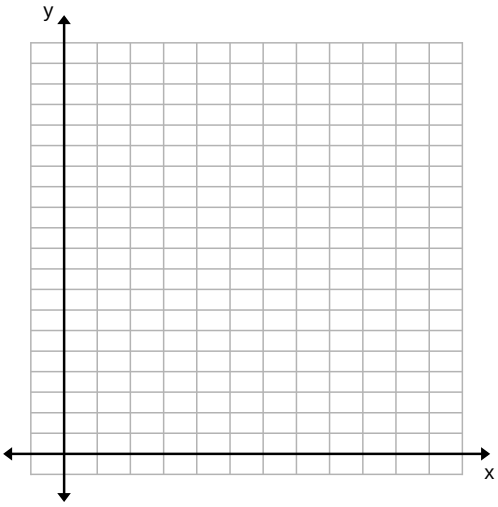
$$S(t) = 9t - 4$$

a. Find $S(4)$.

b. What does $S(4)$ mean?

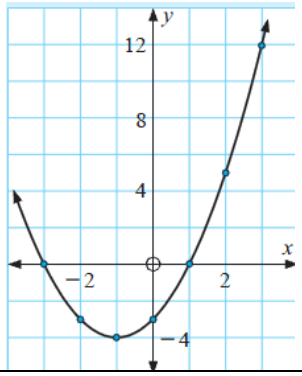
c. Find t when $S(t) = 23$.

d. What does $S(t) = 23$ mean?

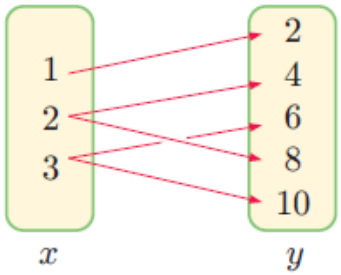


e. Graph the function.

6.

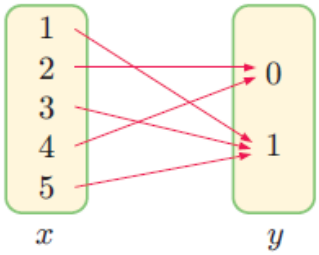
	Function? (yes or no) Domain Range

7.



Function? Yes No

Domain : Range :



Function? Yes No

Domain : Range :

BONUS:
Find an equation of a linear function given $h(1) = 6$ and $h(4) = -3$.