

Algebra I  
Function Notation Worksheet

Name: \_\_\_\_\_

Hour: \_\_\_\_\_ Date: \_\_\_\_\_

1. Evaluate the following expressions given the functions below:

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

a.  $g(10) =$

b.  $f(3) =$

c.  $h(-2) =$

d.  $j(7) =$

e.  $h(a)$

f. Find  $x$  if  $g(x) = 16$

g. Find  $x$  if  $h(x) = -2$

h. Find  $x$  if  $f(x) = 23$

i. CHALLENGE! (in other words, optional)  $g(b+c)$

j. CHALLENGE! (also optional)  $f(h(x))$

2. Translate the following statements into coordinate points:

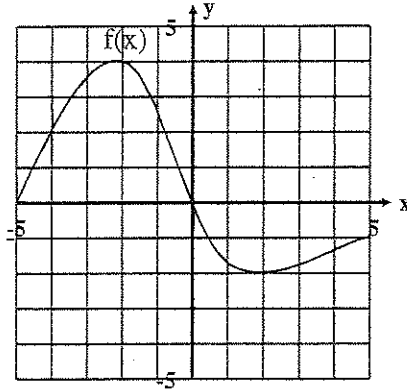
a.  $f(-1) = 1$

b.  $h(2) = 7$

c.  $g(1) = -1$

d.  $k(3) = 9$

3. 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  $f(x) = 0$

4. Swine flu is attacking Porkopolis. The function  $S(t) = 9t - 4$  determines how many people have swine flu where  $t =$  time in days and  $S =$  the number of people in thousands.

a. Find  $S(4)$ . What does your answer represent?

b. Find  $t$  when  $S(t) = 23$ . What does your answer represent?