

1. Evaluate the following expressions given the functions below:
Show your substitutions (the expression with the variable replaced by a number).

REMEMBER***

$f(-3)$ means -3 is your input and you plug it in for x

$f(x) = -3$ means that your whole function is $= -3$ and you plug into the y .

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

a. $g(10) =$ _____

e. $h(a) =$ _____

b. $f(3) =$ _____

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

c. $h(-2) =$ _____

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

d. $j(7) =$ _____

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

2. Translate the following statements into coordinate points and graph:

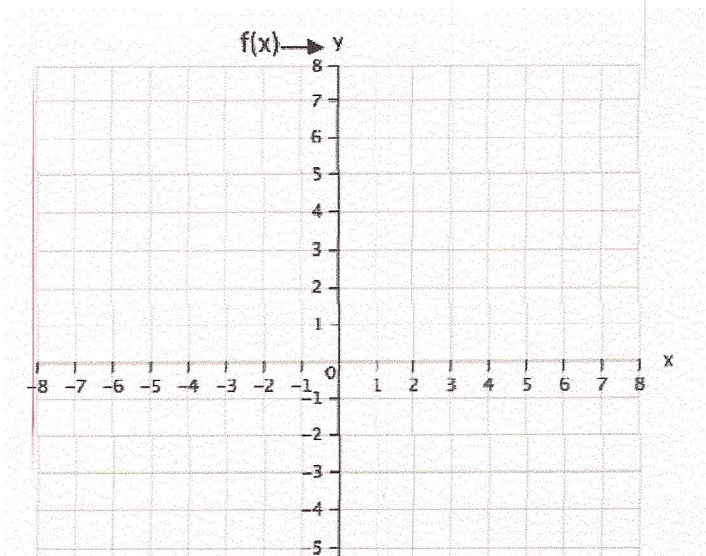
a. $f(-1) = 1$ (____, ____) ex ($x, f(x)$)

b. $f(2) = 7$ (____, ____)

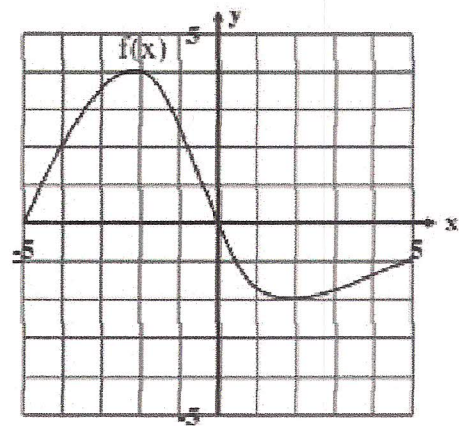
c. $f(1) = -1$ (____, ____)

d. $f(3) = -5$ (____, ____)

e. $f(4) = 2$ (____, ____)



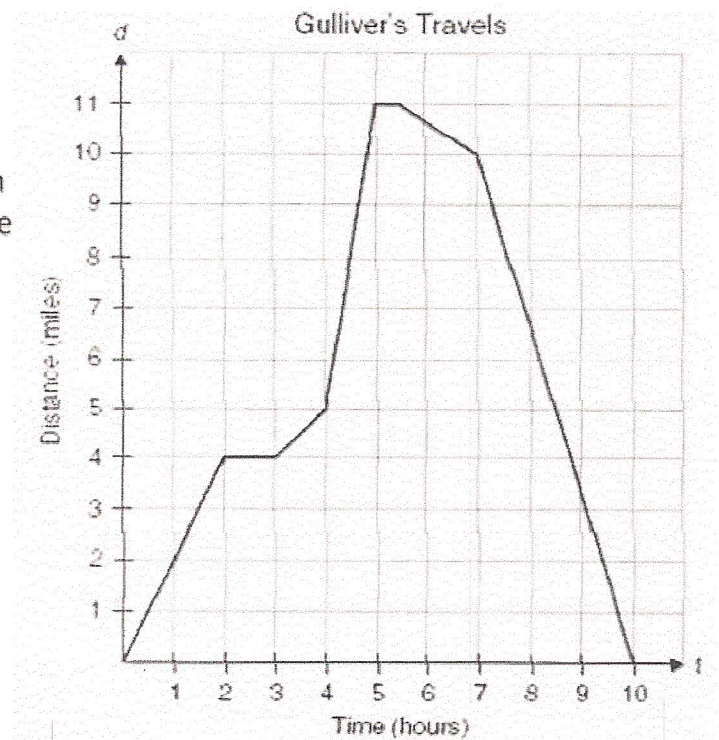
3. Given this graph of the function $f(x)$:



Find:

- | | |
|--------------------|--------------------|
| a. $f(-4) =$ _____ | e. $f(5) =$ _____ |
| b. $f(0) =$ _____ | f. $f(4) =$ _____ |
| c. $f(2) =$ _____ | g. $f(-5) =$ _____ |
| d. $f(-2) =$ _____ | h. $f(-1) =$ _____ |

The function $d(t)$ represents Gulliver's distance from home after t hours.



1. Use the graph to evaluate the function at each value. Explain what each means in terms of the problem.

- | | |
|-------------|------------|
| a. $d(2)$ | b. $d(5)$ |
| c. $d(2.9)$ | d. $d(10)$ |

2. Calculate the value of t that makes each equation true. Explain what each means in terms the problem.

- | | |
|---------------|---------------|
| a. $d(t) = 2$ | b. $d(t) = 5$ |
|---------------|---------------|