**Function Notation Assignment** Name: _____

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. Find x if g(x) = 16

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

h. Find x if f(x) = 23

i. CHALLENGE: g(b + c) =

j. CHALLENGE: f(h(x)) =

2) What would be the coordinate if you graphed the following statements in the xy-plane?

a. f(-1) = 1

b. 7 = h(2)

c. g(1) = -10

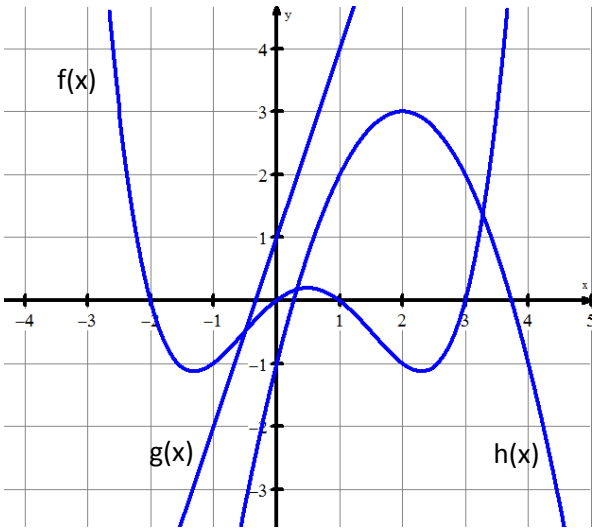
d. 9 = k(3)

3) Evaluate the following from the graph of the functions f(x), g(x), and h(x) shown to the right.

a. f(-2) b. h(3)

c. g(0) d. h(2)

e. f(x) = 0 f. g(x) = 1



4) The function f(s) = 8s + 15 represents the cost of ordering s shirts. Evaluate and explain the meaning of each answer within the context of the problem.

a. f(7)

b. f(100)

c. f(x) = 55

d. f(x) = 151

5) The function h(a) represents the average height of boys that are a years old. Use the table below to evaluate and explain the meaning of each answer within the context of the problem.

| Boy's Age | Average Height in Inches |
|---|---|
| 6 months | 26 |
| 12 months | 30 |
| 18 months | 34 |
| 2 years | 36 |
| 3 years | 39 |
| 4 years | 42 |
| 5 years | 44 |
| 6 years | 47 |
| 7 years | 49 |
| 8 years | 51 |
| 9 years | 53 |
| 10 years | 55 |
| 11 years | 57 |
| 12 years | 59 |
| 13 years | 61 |

a. h(7)

b. h(1.5)

c. h(11)

d. h(a) = 61

e. h(a) = 36