Try This!!!

3. The equation $C = 25n + 1000$ represents the cost, C dollars, for a feast following an Arctic sports competition, where n is the number of people attending.

a) Describe the function. Write the equation in function notation.

Cost of feast for n amount of people

$C(n) = 25n + 1000$

b) Determine the value of $C(100)$. What does this number represent?

c) Determine the value of n when $C(n) = 5000$. What does this number represent?

b) Replace n with 100

$C(100) = 25(n) + 1000$

$= 25(100) + 1000$

$= 2500 + 1000$

$= 3500$

It will cost $3500 to have a feast for 100 people.

c) $C(n) = 25n + 1000$

$5000 = 25n + 1000$

$5000 - 1000 = 25n + 1000 - 1000$

Isolate "n"

$4000 = 25n$

$\frac{4000}{25} = \frac{25n}{25}$

$160 = n$

When the cost is $5000 for the feast, then 160 people attended.

Completed for Homework

Evaluating Functions

Show all work

1) *If* $f(x) = 3x^2 - x - 6$, *find...*

a) $f(5)$

b) f(-7)

c) f(-3)

SOLUTIONS

a) $f(x) = 3x^2 - x - 6$

$f(5) = 3(5)^2 - 5 - 6$

$= 3(25) - 5 - 6$

$= 75 - 5 - 6$

$= 64$

b) $f(x) = 3x^2 - x - 6$

$f(-7) = 3(-7)^2 - -7 - 6$

$= 3(49) - -7 - 6$

$= 147 - -7 - 6$

$= 147 + 7 - 6$

$= 148$

c) $f(x) = 3x^2 - x - 6$

$f(-7) = 3(-3)^2 - -3 - 6$

$= 3(9) - -3 - 6$

$= 27 - -3 - 6$

$= 27 + 3 - 6$

$= 24$

$g(-14) = -14 + 3$

$= -11$

$h(4) = -3(4) - 2$

$= -12 - 2$

$h(4) = -14$

2) If g(x) = x + 3 and h(x) = -3x-2

a) g(5) b) g(7) c) h(-10) d) h(5)

e) g(h(4)) = -11 f) g(x) = 33 g) h(x)= -41

SOLUTIONS

a) g(x) = x + 3

g(5) = 5 + 3

= 8

b) g(x) = x + 3

g(7) = 7 + 3

= 10

c) h(x) = -3x-2

h(-10) = -3(-10) - 2

= 30 - 2

= 28

d) h(x) = -3x-2

h(5) = -3(5) - 2

= -15 - 2

= -17

e) g(h(4))

h(x) = -3x-2

h(4) = -3(4) - 2

= -12 - 2

= -14

g(-14) = x + 3

g(-14) = -14 + 3

= -11

f) g(x) = 33

g(x) = x + 3

33 = x + 3

$33 - 3 = x + 3 - 3$

30 = x

g) h(x) = -41

h(x) = -3x-2

-41 = -3x - 2

-41 + 2 = -3x -2+2

-39 = -3x

$\frac{-39}{-3} = \frac{-3x}{-3}$

13 = x

Worksheet

Quiz in two days (~~Wednesday, Nov 15~~ Wed, Apr. 26)

QUIZ OUTLINE (GIVEN LAST DAY)

#1) Given two graphs state the

Domain, Range, if a Function/Non-Function, Linear/Non-Linear, Continuos/Discrete (10 points)

#2) Evaluate G(x) a) when given an x b) when given a g(x)

(Ex $G(x) = -3x^2 - 5$ a) g(4) b) g(x) = -305)

#3) Word problem . With equation given

a) Given an equation, write it as function notation

b) Determine a value when given x, explain what the answer means

c) Determine a value of y, and explain what it means.

Thursday Nov. 9

Worksheet

show all work

Once Done Read Page 274

Do questions on page 275
#1, 2, 3, 4

Algebra I
Function Notation Worksheet

Name: _____
Hour: _____ Date: _____

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(+ j (19)

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

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

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

i. CHALLENGE! g(j(-6))

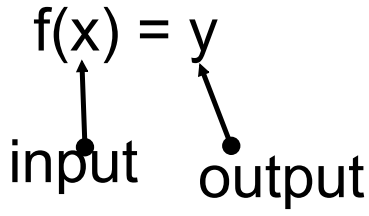
j. CHALLENGE! f(h(x))

2. Translate the following statements into coordinate points: (x,y)

a. $f(-1) = 1$

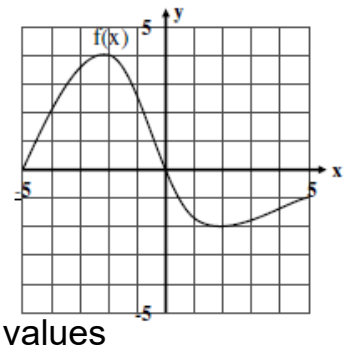
b. $h(2) = 7$

c. $g(1) = -1$



d. k(3) = 9

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



Use the graph to find the values

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

Attachments

FunctionNotationWorksheet.pdf