

Warm Up

Try These!!!

Quiz tomorrow

Domain/Range

Linear/Non-Linear

Continuous/Discrete

Function notation

#1. If $f(x) = -4x^2 - x + 10$

$$\begin{aligned} \text{a) } f(-2) &= -4(-2)^2 - (-2) + 10 \\ &= -4(4) + 2 + 10 \\ &= -16 + 2 + 10 \\ &= -4 \end{aligned}$$

$$\text{b) } f(3)$$

$$\begin{aligned} f(3) &= -4(3)^2 - 3 + 10 \\ &= -4(9) - 3 + 10 \\ &= -36 - 3 + 10 \\ &= -29 \end{aligned}$$

2) $g(x) = 3x + 7$ find x if $g(x) = 97$

$$97 = 3x + 7$$

$$97 - 7 = 3x + 7 - 7$$

$$\frac{90}{3} = \frac{3x}{3}$$

$$\boxed{30 = x}$$

Worksheet

From LAST
Thursday

Solutions

1 a) -29 b) 16 c) -6 d) 23 e) $29 + \frac{12}{a}$

f) $x = -5$ g) $x = -6$ h) $x = \pm 4$ i) 10 j) $-3\left(\frac{12}{x}\right) + 1$
 $= -\frac{36}{x} + 1$

2)a) (-1, 1) b) (2,7) c) (1,-1) d) (3,9)

3) a) $f(-4) = 2$ b) $f(0) = 0$ c) $f(3) = 1.75$ d) $f(-5) = 0$

e) $x = -4$ and $x = -1$ when $f(x) = 2$ f) $f(x) =$ when $x = -5$ and $x = 0$

$$f(x) = -2x + 3$$

$$g(x) = 3x^2 + 4$$

$$h(x) = 5(x-1)$$

a) $f(2)$

$$f(x) = -2x + 3$$

$$f(2) = \underbrace{-2(2)}_{-4} + 3$$

follow
Bedmas

$$f(2) = -1$$

(x, y)
 $(2, -1)$

b) $f(x) = 31$

SANDEB

$$f(x) = -2x + 3$$

$$31 = -2x + 3$$

Solve for x

$$28 = -2x$$

$$\frac{28}{-2} = \frac{-2x}{-2}$$

$$\boxed{-14 = x}$$

$$f(x) = -2x + 3$$

$$g(x) = 3x^2 + 4$$

$$h(x) = 5(x-1)$$

c) $g(f(5)) = 151$
do first

$$f(x) = -2x + 3$$

$$f(5) = -2(5) + 3$$

$$-10 + 3$$

$$f(5) = -7$$

$$(5, -7)$$

$g(\text{Answer})$
 $g(-7) = 3x^2 + 4$
 $3(-7)^2 + 4$
 $3(49) + 4$
 $147 + 4$
 151

$$f(x) = -2x + 3$$

$$g(x) = 3x^2 + 4$$

$$h(x) = 5(x-1)$$

d) $h(8) - f(1)$

$$h(8) = 5(8-1) \quad f(1) = -2(1) + 3$$
$$5(7) \quad -2 + 3$$
$$35 \quad 1$$

$$35 - 1$$
$$\textcircled{34}$$

Homework

Page 272:
Questions: 14 to 19

finish page 275 if you are done and did not finish it last Wednesday

STUDY FOR QUIZ

Page 275 #1,2,3,4 (If you didn't do yet)

Attachments

FunctionNotationWorksheet.pdf