

Algebra 1 11/3

Warm Up IXL

Algebra 1

B.5

1-7 Function Day 2

I can use function notation and find function values

Function notation

a special type of notation that shows an equation is a function replaces $y =$ with $f(x) =$ (Read f of x equals)

Equation

$$y = 3x - 8$$

$$y = 3x - 8 \text{ when } x = 5$$

Function Notation

$$f(x) = 3x - 8$$

$$f(5) =$$

In function notation the x represents the elements of the domain and $f(x)$ represents the elements of the range.

$f(5)$ (read f of 5) means to find the value of the range that corresponds with a specific domain value. It means substitute 5 into the equation and find the answer

I can use function notation and find function values

Ex. 1 For $f(x) = -4x + 7$ find each value

A. $f(2) = -4(2) + 7$
 $= -8 + 7$

$$f(2) = -1$$

B. $f(-3) = -4(-3) + 7$
 $= 12 + 7$

$$f(-3) = 19$$

C. $f(7) = -4(7) + 7$
 $= -28 + 7$

$$f(7) = -21$$

I can use function notation and find function values

Ex. 2 For $g(x) = 2x - 3$ find each value

A. $g(-3) + 1$

$$g(-3) = 2(-3) - 3$$

$$g(-3) = -6 - 3$$

$$g(-3) = -9 + 1$$

$$g(-3) + 1 = -8$$

B. $6 - g(5)$

$$g(5) = 2(5) - 3$$

$$= 10 - 3$$

$$g(5) = 7$$

$$6 - g(5) = 6 - 7 = -1$$

C. $g(-1) + g(2)$

$$g(-1) = 2(-1) - 3$$

$$= -2 - 3$$

$$g(-1) = -5$$

$$g(2) = 2(2) - 3$$

$$= 4 - 3$$

$$g(2) = 1$$

$$g(-1) + g(2) = -5 + 1 = -4$$

I can use function notation and find function values

Ex. 3 If $h(t) = -16t^2 + 68t + 2$ find each value

A. $h(4) = -16(4)^2 + 68(4) + 2$
 $-16 \cdot 16 + 272 + 2$
 $-256 + 272 + 2$
 $16 + 2 = 18$

$$h(4) = 18$$

B. $2[h(g)]$

$$h(g) = -16g^2 + 68g + 2$$

$$2[h(g)] = -32g^2 + 136g + 4$$

C. $3[h(t)] + 2$

$$3(-16t^2 + 68t + 2)$$
$$-48t^2 + 204t + 6 + 2$$

$$3[h(t)] + 2 = -48t^2 + 204t + 8$$

I can use function notation and find function values

ICA Pg 51

#12-18ev,

#34-46ev

IXL Algebra 1 Q.6-Q.8

