

Algebra II
Section 1.7
Function Notation

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Aug 28-9:50 AM

Bell Ringer

Write the definition of a function and give a real-world example of a function.

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We have worked with $y=mx+b$. We will work with the same equation in Function Notation

$y=2x+1$ is now $f(x)=2x+1$ so... $y=f(x)$

They are the exact same thing.

If I know what value x is then I can find the value of y and $f(x)$.

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I will show you how to use the function machine.

Find $f(\frac{1}{2})$ $f(0)$ $f(-2)$

$F(x)=2x-1$ $OUT = 0$

$y=2x-1$

$2(\frac{1}{2})-1$
 $1-1$
 0

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So in $y = -2x+3$ or $f(x)=-2x+3$,
 the y or $f(x)$ is the **Dependent Variable**. *output*
 the x is the **Independent Variable**. *input*
 The value of $f(x)$ depends on the value of x .
 Find $f(2)$ and $f(-4)$

$f(x) = -2x + 3$
 $f(2) = -2(2) + 3 = -1$
 $f(-4) = -2(-4) + 3 = 11$

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For each function, evaluate $f(0)$, $f(\frac{1}{2})$, $f(-2)$

a) $f(x)=8+4x$

$f(0) = 8 + 4(0) = 8$
 $f(\frac{1}{2}) = 8 + 4(\frac{1}{2}) = 10$
 $f(-2) = 8 + 4(-2) = 0$

b)

find y-values

$f(0) = 3$
 $f(\frac{1}{2}) = 0$
 $f(-2) = 4$

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Graph each function.

a) $\{(0,4), (1,5), (2,6), (3,7)\}$

b) $f(x)=3x - 1$

3 rise / 1 run slope
y-int

x	y
0	-1
1	2
2	5
3	8

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A carnival charges \$5 entrance fee and \$2 per ride.

a) Write a function to represent the total cost after taking a certain number of rides.

$$C(r) = 2r + 5$$

b) What is the value of the function for an input of 12, and what does it represent?

input - # of rides (r)

$$2(12) + 5$$

$$\$29$$

Conclusion

Person on the right, make up a function notation problem and give it to the person on the left. Person on the left, talk through the process of solving the function.

$$f(x) =$$

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Assignment

Hmwk #2

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