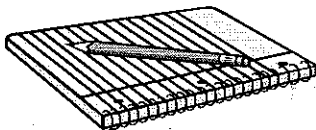


# Function Notation

Explore-Class Notes



Name Key  
Date \_\_\_\_\_ Period \_\_\_\_\_

Complete the following notes as your class discusses the Function Notation Powerpoint.

Slide 2

If a relation is a function, its equation can be written in a form called function notation.

Slide 3

The dependent variable is a function of the independent variable.  
 $\frac{y}{y}$  depends on  $\frac{x}{x}$   
 $\frac{y}{y}$  is a function of  $\frac{x}{x} = f(x)$

Slide 4

How did we re-write Fred's equation into function notation?

\$ in Fred's savings acct depends on \$25 per day plus \$100 already in acct.  
\$ in Fred's account is \$25 per day plus \$100  
 $f(x)$  =  $25 \cdot x + 100$

$$f(x) = 25x + 100$$

Slide 5

How do you say that?

When the equation  $y = 25x + 100$  is written in function notation  $f(x) = 25x + 100$  you would say f of x equals, instead of y equals.

Slide 6

Note: You do NOT have to use the letter "f" to write an equation in function notation. You may use any letter.

For Example:

George:

$$g(h) = 8h + 20$$

Marty:

$$m(t) = 15t + 36$$

Sarah:

$$s(r) = 6r$$

Slide 7

You can think of a function as an input - output machine. For Fred's savings,  $f(x) = 25x + 100$ , if you have an input of X, the output is  $25X + 100$ .

If Fred wanted to know how much money he would earn by working 8 days, he would input 8 for X and find the output. This is called evaluating the function (FSS)

Slide 8

You can evaluate equations in function notation just like you evaluate expressions. (using FSS)

Example: (F)  $f(x) = 25x + 100$ , find  $f(4)$ .

(S)  $f(4) = 25(4) + 100$

(S)  $f(4) = 200$

Finding  $f(4)$  means, find the Amount of money in Fred's account after he worked 4 days.

Slide 9

Now try these:

$$g(c) = c^2 + 2c + 6$$

$$h(v) = 7 - 6v$$

Find:  $g(-1)$

$h(4)$

(F)  $g(c) = c^2 + 2c + 6$

(F)  $h(v) = 7 - 6v$

(S)  $g(-1) = (-1)^2 + 2(-1) + 6$

(S)  $h(4) = 7 - 6(4)$

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

(S)  $h(4) = -17$