

Functions and Applications

Chapter 1: Introduction to the Quadratic Function

1.3 Working with Function Notation

We remember using equations:

$$y = 3x + 1$$

$$\text{If } x = 2,$$

$$y = 3(2) + 1$$

$$y = 6 + 1$$

$$y = 7$$

Which can be written as a point as (2,7)



Functions and Applications

Chapter 1: Introduction to the Quadratic Function

1.3 Working with Function Notation

In Function Notation:

$$f(x) = 3x + 1$$


$$\text{If } x = 2$$

$$f(2) = 3(2) + 1$$

$$f(2) = 6 + 1$$

$$f(2) = 7$$

The output of the function 'f' is 7 when the input is 2



Functions and Applications

Chapter 1: Introduction to the Quadratic Function


1.3 Working with Function Notation

Spoken:

The previous function $F(x)$ is spoken as "F at x", or "F of X"

Similarly,

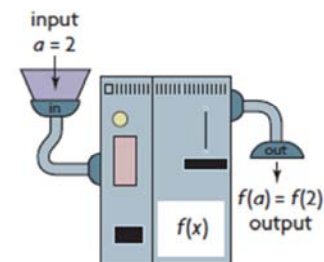
$F(2)$ is "F at two"



Functions and Applications

Chapter 1: Introduction to the Quadratic Function

1.3 Working with Function Notation





Functions and Applications

Chapter 1: Introduction to the Quadratic Function

1.3 Working with Function Notation

Examples: Let $F(x) = 3x - 5$ and $G(x) = x^2 + 1$

Find i) $F(2)$

ii) $G(2)$

iii) $F(-3)$

iv) $G(0)$

v) $F(2) + G(2)$

vi) $F(1) - G(-2)$

vii) $F(a - 2)$



Functions and Applications

Chapter 1: Introduction to the Quadratic Function

1.3 Working with Function Notation

Homework:

Page 32 - Questions 1-5, 7, 10 a(i,iii,v), 11 a(i,iii,v), 13



Functions and Applications

Chapter 1: Introduction to the Quadratic Function

Chapter 1 Mid Chapter Review

Homework:

Page 37 - Questions 1-7