

1.2 Function Notation.

Old way: $y = 2x + 5$

New way: $f(x) = 2x + 5$

"f of x"

"f at x"

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

$$f(3) = 11$$

$$(3, 11)$$

$$f(-8) = 2(-8) + 5$$

$$f(-8) = -16 + 5$$

$$f(-8) = -11$$

Evaluate the x for $f(x) = 31$

What is the x -value that results in 31?

$$31 = 2x + 5$$

$$26 = 2x$$

$$13 = x$$

$$\therefore f(13) = 31$$

Evaluate $f(n+3) = 2(n+3) + 5$

$$f(n+3) = 2n + 6 + 5$$

$$f(n+3) = 2n + 11$$

$$g(x)$$

$$h(x)$$

$$h(t)$$

$$v(t)$$

EXAMPLE 3**Connecting function notation to a graph**

For the function shown in the graph, determine each value.

a) $g(3) = 2$

b) $g(-1) = 0$

c) x if $g(x) = 1$ $g(0) = 1$

d) the domain and range of $g(x)$

