

6.3 Evaluating Functions

$$y = ax^2 + bx + c \rightsquigarrow \underline{f(x)} = ax^2 + bx + c$$

- * $f(x)$ means the value of the function at x . Say 'f of x'
- plug in the value of x to get #.
 - $f(x)$ is same as y

$$f(x) = 2x + 4$$

$$f(2) = 2(2) + 4$$

$x=2 \rightarrow y = 4 + 4$
 $y = 8$

$$f(-3) = 2(-3) + 4$$

$x=-3 \rightarrow y = -6 + 4$
 $y = -2$

$$f(r+2) = 2(r+2) + 4$$

$y = 2r + 4 + 4$
 $y = 2r + 8$

$$g(x) = x^2 - 4x - 1$$

$$g(4) = (4)^2 - 4(4) - 1$$

$x=4 \rightarrow y = 16 - 16 - 1$
 $y = -1$

$$g(-1) = (-1)^2 - 4(-1) - 1$$

$x=-1 \rightarrow y = 1 + 4 - 1$
 $y = 4$

$$g(m) = (m)^2 - 4(m) - 1$$

$y = m^2 - 4m - 1$

Homework

$$f(x) = 2x + 9$$

$$\textcircled{1} f(-3)$$

$$\textcircled{2} f(0)$$

$$\textcircled{3} f(3x-2)$$

$3m-2$

$$\textcircled{4} f(38)$$

$$g(x) = x^2 - 2x$$

$$\textcircled{5} g(0)$$

$$\textcircled{6} g(12)$$

$$\textcircled{7} g(-5)$$

$$\textcircled{8} g(r)$$

$$h(x) = x^2 - 3x + 4$$

$$\textcircled{9} h(-3)$$

$$\textcircled{10} h(a+5)$$

$$\textcircled{11} h(4n)$$

$$\textcircled{12} h(10)$$