

# B.1 Notes: Function Notation

## Function Notation:

Reg Notation  
 $y = 2x + 3$

Function Notation  
 $f(x) = 2x + 3$

$f(x) = 2x + 3$        $\longrightarrow$       what would it look like  
 $f(\heartsuit) = 2(\heartsuit) + 3$       if I wanted to plug in 3?  
 $f(\ddot{\circ}) = 2(\ddot{\circ}) + 3$        $f(3) = 2(3) + 3$   
 $f(n) = 2n + 3$        $\qquad\qquad\qquad 6 + 3$   
 $f(3) = 9$

#1: Use  $f(x) = 3x - 5$ ,  $c(n) = n + 2$ , and  $h(t) = t^2 + 3t - 1$  to find the following.

a)  $c(3)$

$c(3) = 3 + 2$   
 $c(3) = 5$

b)  $h(2)$

$h(2) = (2)^2 + 3(2) - 1$   
 $4 + 3(2) - 1$   
 $4 + 6 - 1$   
 $10 - 1$   
 $h(2) = 9$

c)  $f(-3)$

$f(-3) = 3(-3) - 5$   
 $-9 - 5$   
 $f(-3) = -14$

$-4^2 = -4 \cdot -4$

#2: Use  $g(x) = -2x + 10$ ,  $m(k) = k^2 - 2$ , and  $c(n) = -n + 5$  to find the following.

a)  $c(-3)$

$c(-3) = -(-3) + 5$   
 $3 + 5$   
 $c(-3) = 8$

b)  $m(-4)$

$m(-4) = (-4)^2 - 2$   
 $16 - 2$   
 $m(-4) = 14$

c)  $g(-1)$

$g(-1) = -2(-1) + 10$   
 $2 + 10$   
 $g(-1) = 12$

d)  $g(3)$

$g(3) = -2(3) + 10$   
 $-6 + 10$

e)  $m(2)$

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

$$g(3) = -2(3) + 10$$

$$-6 + 10$$

$$g(3) = 4$$

$$m(2) = 2^2 - 2$$

$$4 - 2$$

$$m(2) = 2$$