

## Algebra 13-2 Function Notation

Evaluate if  $f(x) = 3x - 2$  and  $g(x) = x^2 - 1$ .

1.  $f(3) =$  \_\_\_\_\_

2.  $f(-2) =$  \_\_\_\_\_

3.  $g(4) =$  \_\_\_\_\_

4.  $g(-3) =$  \_\_\_\_\_

5.  $g(0) =$  \_\_\_\_\_

6.  $f(0) =$  \_\_\_\_\_

7.  $f(2) - g(2) =$  \_\_\_\_\_

8.  $f(g(2)) =$  \_\_\_\_\_

9.  $g(f(2)) =$  \_\_\_\_\_

10.  $f(4) \cdot g(5) =$  \_\_\_\_\_

10. When born Tom was 48 cm tall. He grows at a rate of 14 cm a year. That is his height  $H(t)$  after  $t$  years is given by the function  $H(t) = 48 + 14t$ .

a.) Evaluate  $H(5)$  and tell what it means. \_\_\_\_\_

b.) Would this function be accurate for Tom's height when he is 20? \_\_\_\_\_  
Why or why not?  
\_\_\_\_\_

11. The population of Savannah can be approximated by  $P(y) = 200,000(1.06)^{y-2000}$  where  $y$  is the year.

a.)  $P(2000) =$  \_\_\_\_\_

b.)  $P(2002) =$  \_\_\_\_\_

c.)  $P(2002) - P(2000) =$  \_\_\_\_\_

d.) What does the answer to part c.) represent? \_\_\_\_\_