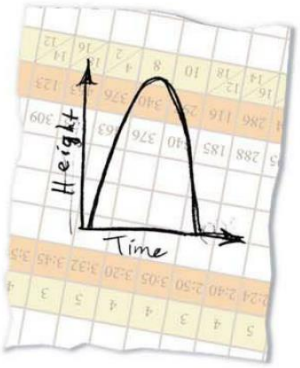
Name: _____

Functions/Function Notation

1. Harold's concentration often wanders from the game of golf to the mathematics involved in his game. His scorecard frequently contains mathematical doodles and graphs.



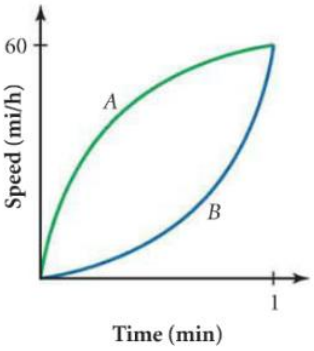

**a.** What is a real-world meaning for this graph found on one of his recent scorecards?

**b.** What units might he be using?

**c.** Describe a realistic domain and range for this graph.

**d.** Does this graph show how far the ball traveled? Explain.

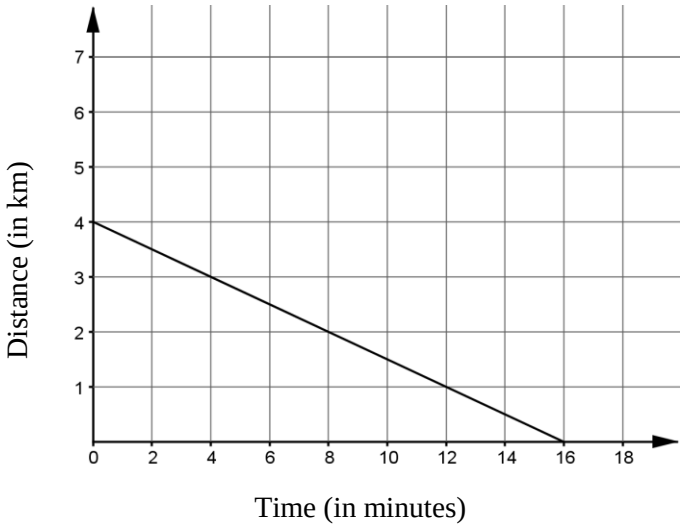
Car A and Car B are at the starting line of a race. At the green light, they both accelerate to 60 mi/h in 1 min. The graph at right represents their velocities in relation to time.




**a.** Describe the rate of change for each car.

**b.** After 1 minute, which car will be in the lead? Explain your reasoning.

Distance From School
When Riding His Bike




3. The graph models Jeremy's distance (in kilometers) from school (along the bike route) after $t$ minutes on his bike. The equation $d = -\frac{1}{2}t + 6$ models Jeremy's distance (in kilometers) from school (along the bus route) after $t$ minutes on the bus.

Which mode of transportation travels farther to get to school? Explain how you determined this.

Which mode of transportation takes less time to get Jeremy to school? Show your work and justify your answer.

Go

**Topic: Using function notation to evaluate a function.**

**The functions $f(x), g(x), and\ h(x)$ are defined below. Simplify your answers.**

$f(x)=x$ $\qquad$ $g(x)=5x-12$ $\qquad$ $h(x)=x^2+4x-7$

**Calculate the indicated function values.**

14. $f(10)$ $\qquad$ 15. $f(-2)$ $\qquad$ 16. $f(a)$ $\qquad$ 17. $f(a+b)$

18. $g(10)$ $\qquad$ 19. $g(-2)$ $\qquad$ 20. $g(a)$ $\qquad$ 21. $g(a+b)$

22. $h(10)$ $\qquad$ 23. $h(-2)$ $\qquad$ 24. $h(a)$ $\qquad$ 25. $h(a+b)$