Name _____ Date _____ Class _____

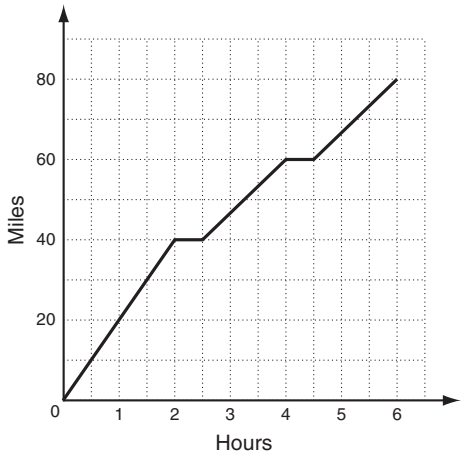
CHAPTER 9

Quiz

Lessons 9-1 Through 9-3

Select the best answer.

1. The graph below shows how far Tony traveled on his bicycle during a 6-hour trip. Which of the statements below is NOT true?



A Tony was moving for a total of 5 hours.

B Tony was going the fastest during the first 2 hours.

C Tony's average rate for the trip was between 12 and 13 miles per hour.

2. Which words could be represented by the function $h(t) = 50 + .05t$?

F The cost of a phone call is 5 cents plus an additional 5 cents per minute.

G The cost of a phone call is 50 cents plus an additional 5 cents per minute.

H The cost of a rental car is 50 dollars plus 5 cents per mile.

3. Evaluate $f(5)$ if

$$f(x) = \begin{cases} 2x & \text{if } x \le 2 \\ 3x - 4 & \text{if } 2 < x \le 5 \\ 4x - 7 & \text{if } x > 5 \end{cases}.$$

A $f(5) = 10$

B $f(5) = 11$

C $f(5) = 15$

4. A car is driven 60 mph for 3 hours, 35 mph for the next 2 hours, and 50 mph for the 4 hours after that. Which function best represents the distance the car traveled?

F $d(t) = \begin{cases} 60 & \text{if } 0 \le t \le 3 \\ 35 & \text{if } 3 < t \le 5 \\ 50 & \text{if } 5 < t \le 9 \end{cases}$

G $d(t) = \begin{cases} 60t & \text{if } 0 \le t \le 3 \\ 35t & \text{if } 3 < t \le 5 \\ 50t & \text{if } 5 < t \le 9 \end{cases}$

H $d(t) = \begin{cases} 60t & \text{if } 0 \le t \le 3 \\ 35t + 180 & \text{if } 3 < t \le 5 \\ 50t + 250 & \text{if } 5 < t \le 9 \end{cases}$

5. Given $f(x) = \begin{cases} 2x + 5 & \text{if } x > 0 \\ 3x - 5 & \text{if } x \le 0 \end{cases}$, which is the rule for $g(x)$, a horizontal translation of $f(x)$ 4 units right?

A $g(x) = \begin{cases} 2x - 3 & \text{if } x > 0 \\ 3x - 17 & \text{if } x \le 0 \end{cases}$

B $g(x) = \begin{cases} 2x - 3 & \text{if } x > 4 \\ 3x - 17 & \text{if } x \le 4 \end{cases}$

C $g(x) = \begin{cases} 2x + 13 & \text{if } x > -4 \\ 3x + 7 & \text{if } x \le -4 \end{cases}$

6. $f(x) = \begin{cases} 2x + 5 & \text{if } x < 4 \\ 4x - 3 & \text{if } x \ge 4 \end{cases}$ and $g(x) = f\left(\frac{1}{2}x\right)$. What is $g(x)$?

F $g(x) = \begin{cases} x + 2.5 & \text{if } x < 2 \\ 2x - 1.5 & \text{if } x \ge 2 \end{cases}$

G $g(x) = \begin{cases} x + 5 & \text{if } x < 2 \\ 2x - 3 & \text{if } x \ge 2 \end{cases}$

H $g(x) = \begin{cases} x + 5 & \text{if } x < 8 \\ 2x - 3 & \text{if } x \ge 8 \end{cases}$

CHAPTER 9

Section Quiz Lessons 9-1 Through 9-3

1. C

2. H

3. B

4. H

5. B

6. H