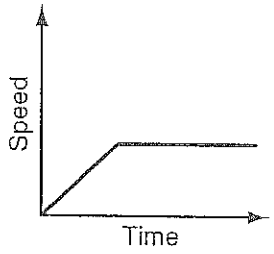
Name _____ Date _____ Class _____

CHAPTER 4 Chapter Test Review

Form A

Select the best answer.

1. Which situation could be represented by the graph below?



A The speed increases and then decreases.

B The speed increases and then remains constant.

2. Which situation would be represented by a graph with points that are *not connected*?

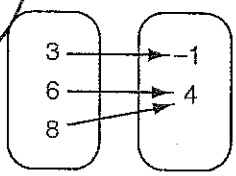
A The height of a plant as it grows

B The distance traveled on a bike

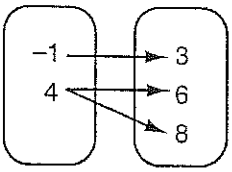
C The number of shoppers who visited a store each day of the week

3. Which mapping diagram shows the relation $\{(3, -1), (6, 4), (8, 4)\}$?

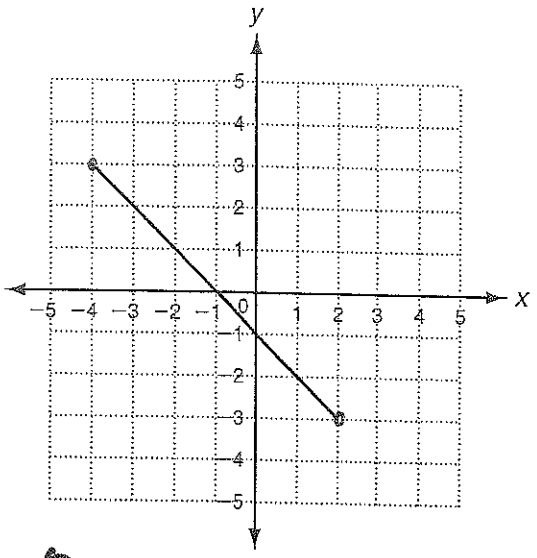
A



B



4. What is the domain of the relation below?



A $-4 \leq x \leq 2$

B $-3 \leq x \leq 3$

5. What is the range of the relation below?

x	3	6	8	9
y	0	5	6	7

A $\{3, 6, 8, 9\}$

B $\{0, 5, 6, 7\}$

6. Which of the following relations is a function?

A $\{(1, -6), (3, -5), (1, 0)\}$

B $\{(6, 1), (6, 2), (6, 3)\}$

C $\{(0, 8), (1, 7), (2, 6)\}$

7. Which equation shows the relationship between the x- and y- values below?

x	0	1	2	3	4
y	0	5	10	15	20

A $y = 5x$

B $y = x + 4$

C $y = \frac{x}{5}$

Name _____ Date _____ Class _____

CHAPTER 4 **Chapter Test** Review

Form A continued

8. Which function could represent the following situation: "Tickets cost $8.50 each."

A $f(t) = t + 8.50$ C $f(t) = 8.50t$

B $f(t) = \frac{t}{8.50}$

9. The popcorn in a vending machine costs $0.75 per bag. Which function rule describes the situation?

A $f(b) = \$0.75b$

B $f(b) = \$0.75 + b$

10. Evaluate the function $f(x) = 2x + 8$ when $x = 6$.

A 16 C 28

B 20

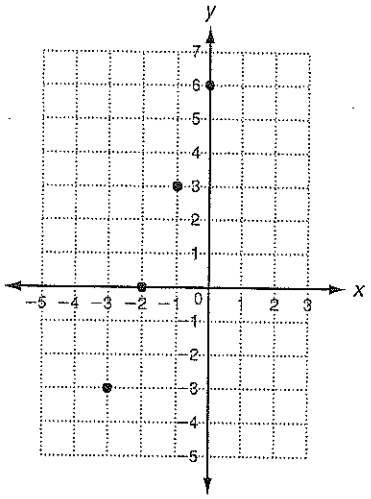
11. Which is the independent variable in the following situation?
"*Eliza jogs more often in the summer months than in the winter months.*"

A day of the week

B type of exercise

C time of year

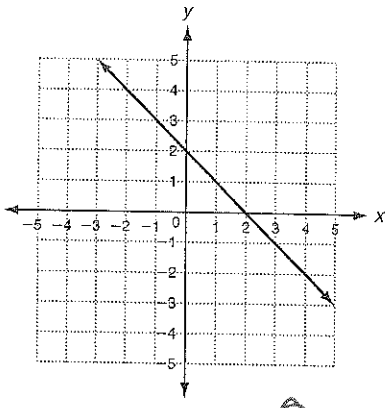
12. Which function is graphed for the domain $\{-3, -2, -1, 0\}$?



A $y = 2x + 4$

B $y = 3x + 6$

13. Which function is graphed below?

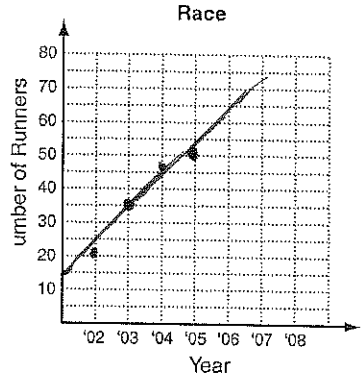


A $y = 2x$ C $y = 2 - x$

B $y = 4x$

14. The table shows the number of runners in a race for four years. Draw a scatter plot and trend line.

Year	'02	'03	'04	'05
Number of Runners	21	35	46	50



Which is the best prediction for the number of runners in 2007?

A 40 B 72

15. Find the next three terms of the arithmetic sequence 3, 7, 11, 15, ...

A 19, 23, 27 B 16, 19, 22 $d = 5$

16. What is the 22nd term of the arithmetic sequence 12, 17, 22, 27,...?

A 105 C 122

B 117

$12 + (21)(5)$

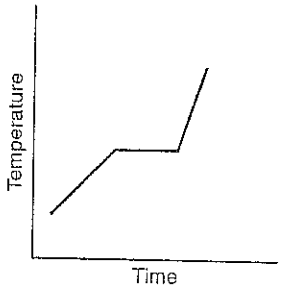
Name _____ Date _____ Class _____

CHAPTER 4 Quiz Review

Lessons 4-1 to 4-4

Select the best answer.

1. Which situation is represented by the graph below?



A temperature increases, decreases, then increases rapidly

B temperature decreases, stays constant, then decreases rapidly

C temperature increases, stays constant, then increases rapidly

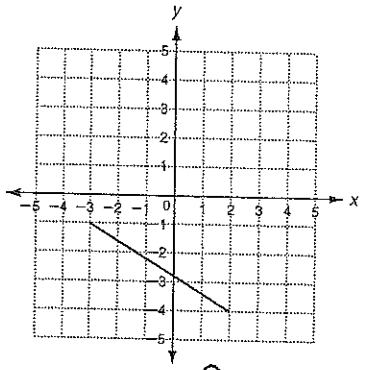
2. Which of the following is represented by a discrete graph?

F height of a plant growing over time

G number of town visitors each year

H temperature of food while cooking

3. What is the domain and range of the graph below?



A D: $-4 \le x \le -3$
R: $-1 \le y \le 2$

B D: $-1 \le x \le 2$
R: $-4 \le y \le -3$

C D: $-3 \le x \le 2$
R: $-4 \le y \le -1$

4. Which of the following is NOT a function?

F (2, 1), (4, 3), (6, 5), (8, 7)

G (2, 1), (4, 3), (6, 5), (8, 5)

H (2, 1), (4, 3), (6, 5), (2, 7)

5. Find $f(x) = 3x - 7$ when $x = 4$.

A 0

B 5

C 14

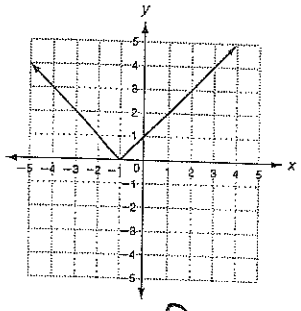
6. A cell phone company charges $50 for the phone plus a monthly service charge of $30. Which function gives the total amount for the charges?

F $f(x) = 50 + 30x$

G $f(x) = 30 + 50x$

H $f(x) = 50x$

7. What is the value of $f(x)$ when $x = -3$?

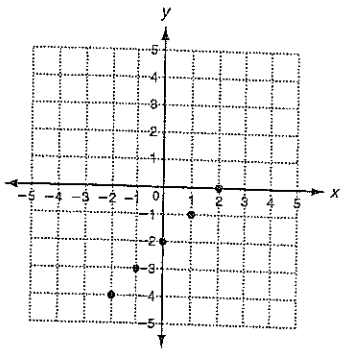


A -4

B -2

C 2

8. Which function is graphed for the domain $\{-2, -1, 0, 1, 2\}$?



F $f(x) = x - 2$

G $f(x) = x + 2$

H $f(x) = 2 - x$

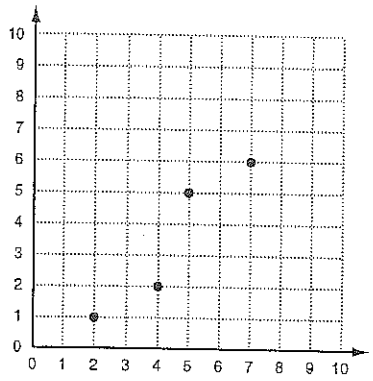
Name _____ Date _____ Class _____

CHAPTER 4 Quiz Review

Lessons 4-5 to 4-6

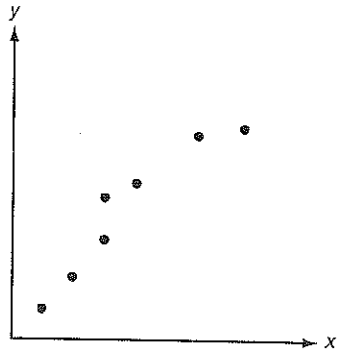
Select the best answer.

1. Which ordered pairs match the scatter plot below?



A (1, 2), (4, 2), (5, 5), (7, 6)
B (2, 1), (2, 4), (5, 5), (7, 6)
C (1, 2), (2, 4), (5, 5), (6, 7)
D (2, 1), (4, 2), (5, 5), (7, 6)

2. Which correlation best describes the scatter plot below?

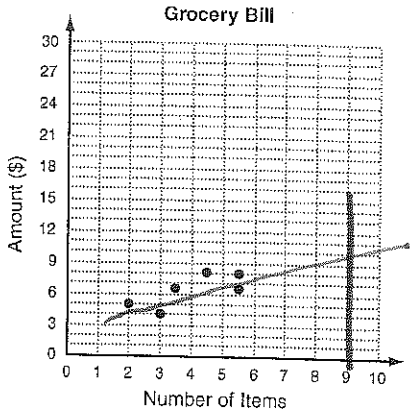


F Positive
G Negative
H Continuous
J None

3. Which of the following best describes a negative correlation?

A height of person over time
B depth of swimming pool as it drains over time
C number of drinks sold over the summer and air temperature
D number of groceries purchased and total amount of bill

4. Based on the graph below, which is the best prediction for the cost of 9 items?



F about 8
G about 14
H about 21
J about 28

5. What is the common difference in the arithmetic sequence $-3, -1, 1, 3, \ldots$?

A -3
B -2
C 2
D 3

6. Which of the following is NOT an arithmetic sequence?

F 1, 2, 3, 4, ...
G 2, 2.5, 3, 3.5,...
H $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, 1, \ldots$
J $-2, 4, -6, 8, \ldots$

7. What is the next term of the arithmetic sequence $1, -2, -5, -8, \ldots$?

A -12
B -11
C -10
D -9

8. What is the 28th term of the arithmetic sequence with $a_1 = 4$ and $d = -2$?

F -52
G -50
H 58
J 60

$4+(27)(-2)$

9. Avery deposited $500 into a savings account in January. She then deposited $100 into the account each month for the remainder of the year. How much money did Avery have in her savings account at the end of December?

A $1100
B $1200
C $1600
D $1700

$500