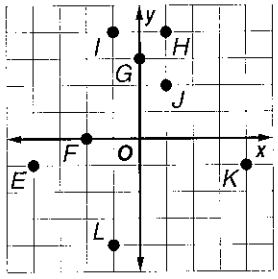
NAME _____ DATE _____ PERIOD _____

4 Chapter 4 Test, Form 2B

SCORE _____

Write the letter for the correct answer in the blank at the right of each question.

For Questions 1 and 2, use the graph to answer each question.



1. Write the ordered pair for point L.

A. $(1, -4)$ **B.** $(-4, 1)$

C. $(-1, -4)$ **D.** $(-4, -1)$ **1.** _____

2. Name the quadrant in which point E is located.

A. I **B.** II **C.** III **D.** IV **2.** _____

3. To plot the point $(-5, 2)$, start at the origin and move

A. right 2 units and down 5 units. **B.** left 5 units and up 2 units.

C. left 5 units and down 2 units. **D.** right 2 units and up 5 units. **3.** _____

4. What type of transformation is shown at the right?

A. reflection **B.** translation

C. dilation **D.** rotation **4.** _____

5. A letter R is turned around a point. Which type of transformation is this?

A. reflection **B.** translation **C.** dilation **D.** rotation **5.** _____

6. Triangle HIJ with $H(-2, 1)$, $I(1, 4)$, and $J(3, 1)$ is reflected over the x-axis. What are the coordinates of the vertices of the figure after the triangle is reflected?

A. $H'(-2, -1), I'(1, -4), J'(3, -1)$ **B.** $H'(2, 1), I'(-1, 4), J'(-3, 1)$

C. $H'(2, -1), I'(-1, -4), J'(-3, -1)$ **D.** $H'(1, -2), I'(4, 1), J'(1, 3)$ **6.** _____

7. What is the range of the relation $\{(5, 3), (2, 8), (-1, 1), (6, 1)\}$?

A. $\{(-1, 1), (6, 1)\}$ **B.** $\{-1, 2, 5, 6\}$

C. $\{1, 3, 8\}$ **D.** $\{3, 8\}$ **7.** _____

8. What is the inverse of the relation $\{(-2, -1), (2, 1), (-2, 4), (-4, 0)\}$?

A. $\{(-4, 0), (-2, 4), (2, 1), (-2, -1)\}$ **B.** $\{(2, 1), (-2, -1), (2, -4), (4, 0)\}$

C. $\{(1, 2), (-1, -2), (-4, 2), (0, 4)\}$ **D.** $\{(-1, -2), (1, 2), (4, -2), (0, -4)\}$ **8.** _____

9. Solve $y = -2x + 8$ if the domain is $\{-2, 0, 4\}$.

A. $\{(-2, 12), (0, 8), (4, 0)\}$ **B.** $\{(-2, 4), (0, 8), (4, 0)\}$

C. $\{(-2, 6), (0, 8), (4, 12)\}$ **D.** $\{(-2, 4), (0, 0), (4, -8)\}$ **9.** _____

10. Which equation is *not* a linear equation?

A. $2x + 5y = 3$ **B.** $y = -10$ **C.** $5 = 3xy$ **D.** $y = \frac{x}{7} + 4$ **10.** _____

11. If $f(x) = 2x^2 - 3x + 5$, what is the value of $f(-3)$?

A. 14 **B.** 50 **C.** 2 **D.** 32 **11.** _____

12. Find the next two numbers of the sequence 1, 8, 5, 12, 9, 16, 13, ...

A. 24, 21 **B.** 20, 17 **C.** 20, 24 **D.** 17, 21 **12.** _____

Assessment

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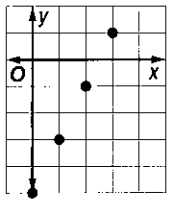
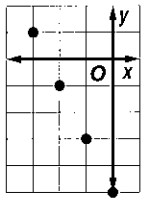
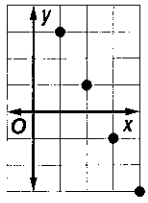
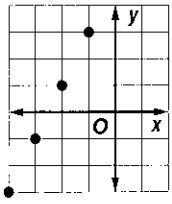
Chapter 4 Test, Form 2B *(continued)*

13. Which is the graph of $2x + y = -5$ if the domain is $\{-4, -3, -2, -1, 0\}$?

A. 

B. 

C. 

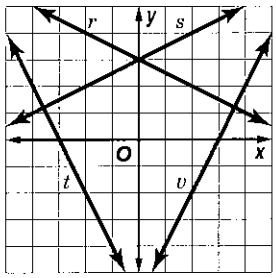
D. 

13. _____

14. Which line shown at the right is the graph of $x + 2y = 6$?

A. r **B.** s

C. t **D.** v



14. _____

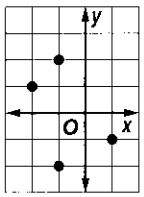
15. Which equation has a graph that is a horizontal line?

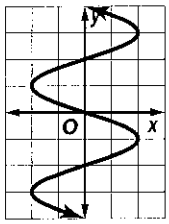
A. $x - 7 = 0$ **B.** $x = y$

C. $2y + 3 = 4$ **D.** $x + y = 0$

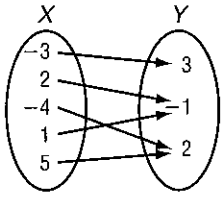
15. _____

16. Determine which relation is a function.

A. 

B. 

C.



D.

x	y
−2	7
0	0
1	−2
1	3

16. _____

17. Determine which sequence is an arithmetic sequence.

A. $-16, -12, -8, -4, \ldots$ **B.** $1, 4, 2, 5, 3, \ldots$

C. $4, 8, 16, 32, \ldots$ **D.** $1, 1, 2, 3, 5, \ldots$

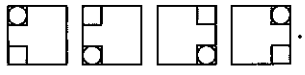
17. _____

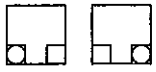
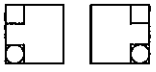
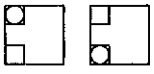
18. Which equation describes the nth term of the arithmetic sequence $-12, -14, -16, -18, \ldots$?

A. $a_n = -2n - 10$ **B.** $a_n = -12 - 2n$

C. $a_n = 10n - 2$ **D.** $a_n = -2n + 10$

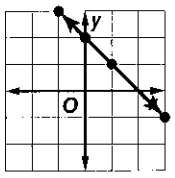
18. _____

19. Find the next two items in the pattern,  .

A.  **B.**  **C.**  **D.** 

19. _____

20. Write an equation in function notation for the relation.



A. $f(x) = -2x$ **B.** $f(x) = -x + 2$

C. $f(x) = x - 2$ **D.** $f(x) = 2x + 2$

20. _____

Bonus If $f(x) = x - x^2$, find $f(2m + 3)$. **B:** _____