

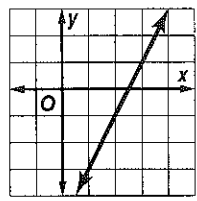
4 Chapter 4 Test, Form 2A

Assessment

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

1. What is the slope-intercept form of the equation of a line with a slope of 5 and a y-intercept of -8?
 A $y = -8x + 5$ B $y = 8x - 5$ C $5x - y = -8$ D $y = 5x - 8$ 1. _____

2. Which equation is graphed at the right?
 F $2y - x = 10$ H $2x - y = 5$
 G $2x + y = -5$ J $2y + x = -5$



3. Which is an equation of the line that passes through (2, -5) and (6, 3)?
 A $y = \frac{1}{2}x - 6$ C $y = 2x + 12$
 B $y = \frac{1}{2}x$ D $y = 2x - 9$ 3. _____

4. What is an equation of the line through (0, -3) with slope $\frac{2}{5}$?
 F $-5x + 2y = 15$ H $2x - 5y = 15$
 G $-5x - 2y = -15$ J $-2x + 5y = 15$ 4. _____

5. Which is an equation of the line with slope -3 and a y-intercept of 5?
 A $y = -3(x + 5)$ B $y - 5 = -3x$ C $-3x + y = 5$ D $y = 5x - 3$ 5. _____

6. What is the equation of the line through (-2, -3) with a slope of 0?
 F $x = -2$ G $y = -3$ H $-2x - 3y = 0$ J $-3x + 2y = 0$ 6. _____

7. Find the slope-intercept form of the equation of the line that passes through (-5, 3) and is parallel to $12x - 3y = 10$.
 A $y = -4x - 17$ B $y = 4x - 13$ C $y = -4x + 13$ D $y = 4x + 23$ 7. _____

8. If line q has a slope of $-\frac{3}{8}$, what is the slope of any line perpendicular to q ?
 F $-\frac{3}{8}$ G $\frac{3}{8}$ H $\frac{8}{3}$ J $-\frac{8}{3}$ 8. _____

9. A line of fit might be defined as
 A a line that connects all the data points.
 B a line that might best estimate the data and be used for predicting values.
 C a vertical line halfway through the data.
 D a line that has a slope greater than 1. 9. _____

10. A scatter plot of data comparing the number of years since Holbrook High School introduced a math club and the number of students participating contains the ordered pairs (3, 19) and (8, 42). Which is the slope-intercept form of an equation for the line of fit? 10. _____
 F $y = 4.6x + 5.2$ G $y = 3x + 1$
 H $y = 5.2x + 4.6$ J $y = 0.22x - 1.13$

11. Use the equation from Question 14 to estimate the number of students who will be in the math club during the 15th year. 11. _____
 A 53 B 61 C 65 D 74

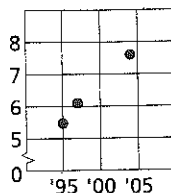
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4 Chapter 4 Test, Form 2A (continued)

For Questions 12–14, use the scatter shown.

12. Which data are shown by the scatter plot?

- F (1995, 5.5), (1997, 6.1), (2004, 7.6)
- G (1995, 5.5), (2000, 6.1), (2004, 7.6)
- H (1995, 5.5), (2000, 6.6), (2005, 8.0)
- J (1995, 5.5), (1997, 6.6), (2005, 8.0)



12. _____

13. Which is true about the data?

- A The slope of a best-fit line would be negative.
- B There is a positive correlation.
- C There is no correlation.
- D There is a negative correlation.

13. _____

14. Based on the data in the scatter plot, what would you expect the y -value to be for $x = 2010$?

- F between 7 and 8
- G higher than 8
- H between 5 and 7
- I impossible to tell

14. _____

15. To calculate the charge for a load of bricks, including delivery, the Redstone Brick Co. uses the equation $C = 0.42b + 25$, where C is the charge and b is the number of bricks. What is the delivery fee per load?

- A \$42
- B \$67
- C \$25
- D It depends on the number of bricks

15. _____

For Questions 16 and 17, use the table shown.

Shots on Goal	22	25	28	29	33
Points Scored	5	7	7	9	8

16. Find the slope of the best-fit line.

- F -0.561
- G 0.283
- H 0.631
- J 0.794

16. _____

17. Estimate how many points would be scored if 80 shots were taken on the goal using the best-fit line.

- A 18
- B 19
- C 22
- D 24

17. _____

18. If $f(x) = \lfloor x + 2 \rfloor$, find $f(1.5)$.

- F 0.5
- G 3
- H 3.5
- J 4

18. _____

19. Which is *not* true about the graph of $f(x) = |3x + 2|$?

- A The range includes all real numbers.
- B It includes the point $(-3, 7)$.
- C The domain includes all real numbers.
- D The graph is “V-shaped.”

19. _____

20. Which point is located on the graph of $f(x) = \begin{cases} \frac{1}{3}x + 2 & \text{if } x \leq 1 \\ \frac{1}{2}x + 1 & \text{if } x > 1 \end{cases}$?

- F $(-3, 1)$
- G $(0, 1)$
- H $(2, 0)$
- J $(3, 3)$

20. _____

Bonus What is the y -intercept of a line through $(2, 7)$ and perpendicular to the line $y = -\frac{3}{2}x + 6$?

B: _____

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