

4 Chapter 4 Test, Form 1

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

For Questions 1–4, find the slope of each line described.

1. the line through (3, 7) and (-1, 4)

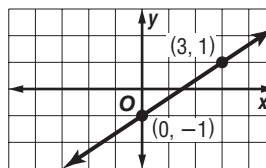
- A. $\frac{4}{3}$ B. $\frac{3}{4}$ C. $\frac{11}{2}$ D. $\frac{2}{11}$ 1. _____

2. the line through (-3, 2) and (6, 2)

- F. $\frac{4}{9}$ G. $\frac{4}{3}$ H. 0 J. undefined 2. _____

3. the line graphed at the right

- A. $\frac{2}{3}$ C. $-\frac{3}{2}$
 B. $\frac{3}{2}$ D. $-\frac{2}{3}$ 3. _____



4. a vertical line

- F. 1 G. 0 H. -1 J. undefined 4. _____

5. Which graph has a slope of -3?

- A. B. C. D. 5. _____

6. **COMMUNICATION** In 1996, there were 171 area codes in the United States. In 1999, there were 285. Find the rate of change from 1996 to 1999.

- F. 114 G. 38 H. $\frac{1}{38}$ J. -144 6. _____

For Questions 7–9, find the equation in slope-intercept form that describes each line.

7. a line through (2, 4) with slope 0

- A. $y = 2$ B. $x = 2$ C. $y = 4$ D. $x = 4$ 7. _____

8. a line through (4, 2) with slope $\frac{1}{2}$

- F. $y = -\frac{1}{2}x$ G. $y = \frac{1}{2}x - 4$ H. $y = 2x - 10$ J. $y = \frac{1}{2}x$ 8. _____

9. a line through (-1, 1) and (2, 3)

- A. $y = \frac{2}{3}x + \frac{5}{3}$ B. $y = -\frac{2}{3}x + \frac{5}{3}$ C. $y = \frac{2}{3}x - \frac{5}{3}$ D. $y = -\frac{2}{3}x - \frac{5}{3}$ 9. _____

10. If 5 deli sandwiches cost \$29.75, how much will 8 sandwiches cost?

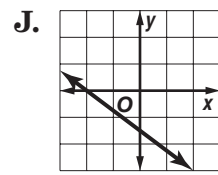
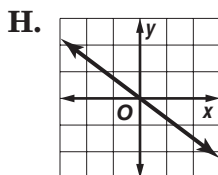
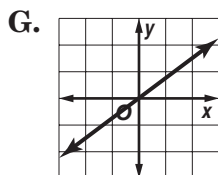
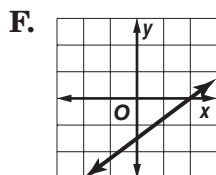
- F. \$37.75 G. \$29.75 H. \$47.60 J. \$0.16 10. _____

11. What is the standard form of $y - 8 = 2(x + 3)$?

- A. $2x + y = 14$ B. $y = 2x + 14$ C. $2x - y = -14$ D. $y - 2x = 11$ 11. _____

4 Chapter 4 Test, Form 1 *(continued)*

12. Which is the graph of $y = -\frac{3}{4}x$?



12. _____

13. Which is the point-slope form of an equation for the line that passes through $(0, -5)$ with slope 2?

- A. $y = 2x - 5$ B. $y + 5 = 2x$ C. $y - 5 = x - 2$ D. $y = 2(x + 5)$ 13. _____

14. What is the slope-intercept form of $y + 6 = 2(x + 2)$?

- F. $y = 2x - 6$ G. $y = 2x - 2$ H. $y = 2x + 6$ J. $2x - y = 6$ 14. _____

15. When are two lines parallel?

- A. when the slopes are opposite C. when the product of the slopes is 1
 B. when the slopes are equal D. when the slopes are positive 15. _____

16. Find the slope-intercept form of an equation for the line that passes through $(-1, 2)$ and is parallel to $y = 2x - 3$.

- F. $y = 2x + 4$ G. $y = 0.5x + 4$ H. $y = 2x + 3$ J. $y = -0.5x - 4$ 16. _____

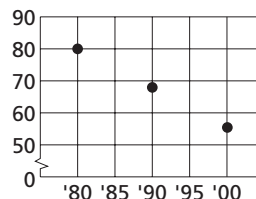
17. Find the slope-intercept form of an equation of the line perpendicular to the graph of $x - 3y = 5$ and passing through $(0, 6)$.

- A. $y = \frac{1}{3}x - 2$ B. $y = -3x + 6$ C. $y = \frac{1}{3}x + 2$ D. $y = 3x - 6$ 17. _____

For Questions 18 and 19, use the scatter plot at the right.

18. How would you describe the relationship between the x - and y -values in the scatter plot?

- F. strong negative correlation
 G. weak negative correlation
 H. weak positive correlation
 J. strong positive correlation



18. _____

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

- A. greater than 80 C. between 65 and 50
 B. between 80 and 65 D. less than 50 19. _____

20. Which equation has a slope of 2 and a y -intercept of -5 ?

- F. $y = -5x + 2$ G. $y = 5x + 2$ H. $y = 2x + 5$ J. $y = 2x - 5$ 20. _____

Bonus Find the value of r in $(4, r)$, $(r, 2)$ so that the slope of the line containing them is $-\frac{5}{3}$.

B: _____