

Name:

Date:

Period:

Answer each question and show work for the questions that require justification of your answer.

1. A line has no slope if it is:
(a) Parallel to the x-axis (b) Parallel to the y-axis (c) 45° with the x-axis (d) 45° with the y-axis
2. Which of the following is an equation of a line whose slope is 0?
(a) $y = 6$ (b) $x = 6$ (c) $y = 2x$ (d) $x + y = 1$
3. Write the equation of a line parallel to the x-axis and 4 units below the x-axis. _____
4. Write the equation of the line parallel to the y-axis and 7 units to the left of the y-axis. _____
5. Write the equation of the line which is parallel to the y-axis and 1 unit to the right of it. _____
6. Write the equation of a line which is parallel to the x-axis and 7 units above it. _____
7. Write an equation of a line parallel to the x-axis and passing through the point (4, 6). _____
8. Write an equation of a line perpendicular to the x-axis and 5 units to the right of the y-axis. _____
9. Which is an equation of a line whose slope is 0?
(a) $x = 7$ (b) $y = 7$ (c) $7x = y$ (d) $x + y = 7$
10. Which pair of points will determine a line parallel to the x-axis?
(a) (2, 3) and (2, -5) (b) (5, 4) and (-1, 4) (c) (2, 2) and (-1, -1) (d) (3, 4) and (6, 2)
11. What is the slope and y-intercept of the graph of the equation $3y + 2x = 9$?
 $m =$ _____
 $b =$ _____
12. The equation of a line is $3x + 8y - 16 = 0$. What is the slope and y-intercept?
 $m =$ _____
 $b =$ _____
13. Which line has a slope of $-\frac{1}{3}$?
(a) $y = \frac{1}{3}x + 2$ (b) $3y + x = 9$ (c) $y = 3x + 1$ (d) $3y = x + 6$
14. Which is the equation of a line with a slope of 1 and a y-intercept of 2?
(a) $y + x = 2$ (b) $y - x = 2$ (c) $y - x + 2 = 0$ (d) $y + x - 2 = 0$

15. What is the slope of a line parallel to the line whose equation is $y = 5x + 4$?

- (a) $-\frac{5}{4}$ (b) 5 (c) $-\frac{4}{5}$ (d) 4

16. Which is the slope of the line whose equation is $4x + 3y = 9$?

- (a) $-\frac{3}{4}$ (b) +3 (c) $-\frac{4}{3}$ (d) $\frac{4}{3}$

17. What is the slope of a line whose equation is $7x - 5y = 10$? _____

18. Write in $y = mx + b$ form, the line whose equation is $7x - 4y = 8$. _____

19. What is the equation of a line that is parallel to the line whose equation is $y = 4x + 9$?

- (a) $y = -\frac{1}{4}x + 5$ (b) $y = -4x + 5$ (c) $y = \frac{1}{4}x - 3$ (d) $y = 4x - 3$

20. What is the equation of a line perpendicular to the line whose equation is $y = 6x + 3$?

- (a) $y = -\frac{1}{6}x + 2$ (b) $y = \frac{1}{6}x + 4$ (c) $y = 6x + 8$ (d) $y = -6x + 9$

21. What is the slope of a line parallel to the line whose equation is $y = \frac{3}{7}x - 1$? _____

22. Write the equation of the line parallel to the line whose equation is $y = \frac{3}{5}x + 7$ and that has a y-intercept of 4. _____

23. Is the graph of the line passing through the points (7, 8) and (3, 6) parallel, perpendicular or neither to the line passing through the points (1, 5) and (2, 3)? _____

24. Write the equation of the line that is perpendicular to $y = x$ and passes through the origin. _____

25. Write the equation of a line that is parallel to $y = 0.5x + 6$ and has the same y-intercept as $y = -9x - 7$. _____

26. Write the equation of the line that is perpendicular to $7x + 5y = 35$ and has a y-intercept of -1. _____