

Chapter 4 Worksheet

Determine the slope of the line passing through each pair of points named.

1. (2, 9), (-3, 5)
2. (-4, -7), (11, -7)

Determine the value of r so that the line through each pair of points has the given slope.

3. (24, 5), (r, 2), $m = \frac{3}{16}$
4. (5, r), (4, 15), $m = 3$

State the slope and y-intercept of the graph of the equation.

5. $y = 7x$
6. $3x - 5y = 10$

Find the x- and y-intercepts for each equation.

7. $y = \frac{2}{3}x - 2$
8. $5x - 9y = 5$

Write each of the following in standard form
1 slope-intercept form.

9. $2x - 5 = y$
10. $7y + 8x = 12$

Write an equation in standard form of the line satisfying the given conditions.

11. passes through (2, 7) and (-5, 4)
12. passes through (1, -2) and (3, 6)
13. has x-intercept 4 and passes through (-2, 5)
14. slope = $-\frac{2}{7}$ and passes through (-3, 7)

Write an equation in slope-intercept form of the line satisfying the given conditions.

15. slope = -5 and y-intercept = $\frac{2}{3}$
16. has x-intercept -2 and y-intercept 6
17. slope = $\frac{4}{5}$ and passes through (2, 5)
18. passes through the origin and (-3, 1)

Graph each equation.

19. $y = 4x - 9$
20. $3x + 2y = 16$

Write an equation of the line that is parallel to the graph of each equation below and that passes through the indicated point. Use slope-intercept form.

21. $4x + 3y = 6$; (-3, 8)
22. $x = \frac{1}{2}y$; (2, 10)

Write an equation of the line that is perpendicular to the graph of each equation below and that passes through the indicated point. Use slope-intercept form.

23. $7x - 2y = 9$; (2, 1)
24. $y = 5x - 3$; (-5, 4)

25. Write the inverse of the equation in $f^{-1}(x)$ notation.

$$6x + 7y = 27$$