

**Part A**

**Graph the line with the given slope that contains the given point.**

20. slope =  $-\frac{1}{2}$ ; ( 3, 1) 21. slope =  $\frac{3}{5}$ ; (1, -2) 22. slope = 4; (-1, 0)

**Write an equation in point-slope form for the line with the given slope that contains the given point.**

23. slope =  $\frac{2}{9}$ ; (-1, 5)

24. slope = 0; (4, -2)

25. slope = 8; (1, 8)

26. slope =  $\frac{1}{2}$ ; (-8, 3)

27. slope = 3; (4, 7)

28. slope = -2; (-1, 3)

**Write an equation in slope-intercept form for the line with the given slope that contains the given point.**

29. slope =  $-\frac{2}{7}$ ; ( 14, -3)

30. slope =  $\frac{4}{5}$ ; ( -15, 1)

31. slope =  $-\frac{1}{4}$ ; (4, -1)

32. slope = -6; ( 9, 3)

**Write an equation in slope-intercept form for the line through the two points.**

35. (7, 8) and (-7, 6)

36. (2, 7) and (-4, 4)

37. (-1, 2) and (4, -23)

38. (4, -1) and (-8, -10)

39. (0, 11) and (-7, -3)

40. (1, 27) and (-2, 12)

**Part B**

**Write an equation in slope-intercept form for the line that is parallel to the given line and that passes through the given point.**

22.  $y = 3x - 7$ ; ( 0, 4)

23.  $y = \frac{1}{2}x + 5$ ; (4, -3)

24.  $4y = x$ ; (4, 0)

25.  $y = 2x + 3$ ; (1, 7)

26.  $5x - 2y = 10$ ; (3, -5)

27.  $y = 3x - 4$ ; (-2, 7)

28.  $y = 7$ ; (2, 4)

31.  $y = 4x + 2$ ; (5, -3)

29.  $x + y = 1$ ; (2, 3)

32.  $y = \frac{1}{2}x - 1$ ; (0, -4)

30.  $2x + 3y = 7$ ; (4, 5)

33.  $3x + 4y = 8$ ; (4, -3)

**Write an equation in slope-intercept form for the line that is perpendicular to the given line and that passes through the given point.**

34.  $y = -3x + 4$ ; (6, -2)

37.  $5x + 2y = 10$ ; (3, -5)

40.  $2x + 3y = 7$ ; (4, 5)

43.  $y = -2x + 4$ ; (-2, 5)

35.  $y = x - 6$ ; (-1, 2)

38.  $y = 5 - 3x$ ; (2, -4)

41.  $4x - 2y = -6$ ; (3, -2)

44.  $y = x - 5$ ; (0, 5)

36.  $3x - 4y = 8$ ; (-6, 5)

39.  $-10x + 2y = 8$ ; (4, -3)

42.  $-2x - 8y = 16$ ; (4, 5)

45.  $x + y = 2$ ; (8, 5)