EXERCISES

Find the equation of the line having the slope and $y-$intercept. Express each equation in standard form $ax+by=c$.

1. slope -3, $y-$intercept 5
2. slope 3, $y-$intercept -5
3. slope -3, $y-$intercept -5
4. slope 6, $y-$intercept -9
5. slope $\frac{1}{2}$, $y-$intercept 7
6. slope $-\frac{1}{2}$, $y-$intercept 7
7. slope $-\frac{2}{3}$, $y-$intercept 8
8. slope $\frac{3}{4}$, $y-$intercept 8
9. slope $\frac{2}{3}$, $y-$intercept -4
10. slope $-\frac{3}{4}$, $y-$intercept -4

Find the equation of the line having the slope and passing through the given point. Express each equation in slope-intercept form $y=mx+b$.

11. slope 2, (2, 5)
12. slope 2, (5, 2)
13. slope -2, (3, 4)
14. slope -2, $(-3, 4)$
15. slope -2, (3, -4)
16. slope 2, $(-3, -4)$
17. slope -2, $(-3, -4)$
18. slope 7, (1, 6)
19. slope 6, $(-5, 8)$
20. slope -1, (4, 9)
21. slope 1, (5, -1)
22. slope 0, $(-7, 5)$
23. slope 0, (3, 0)
24. slope undefined, (5, 0)
25. slope undefined, (0, 5)
26. slope $\frac{1}{2}$, (4, -2)
27. slope $-\frac{3}{5}$, (10, 3)
28. slope $-\frac{2}{3}$, (2, -1)
29. slope $\frac{4}{5}$, (0, 9)
30. slope $\frac{5}{4}$, (9, 0)

Find the equation of the line passing through the given two points. Express each equation in standard form $ax+by=c$.

31. (1, 2), (3, 4)
32. (2, 1), (4, 3)
33. $(-2, 3)$, (0, 4)
34. (2, -3), (4, 0)
35. (0, 5), (2, 6)
36. (0, 0), $(-2, 4)$
37. (5, 0), (6, 3)
38. $(-3, -4)$, (0, 7)
39. $(-3, -6)$, $(-4, 7)$
40. $(-6, -2)$, (7, 0)
41. (2.5, 3), (4, 7.5)
42. (3, 4.5), (2.5, 3.5)
43. $(1, \frac{1}{2})$, $(2, \frac{2}{3})$
44. (2, 3), $(\frac{1}{2}, \frac{1}{2})$
45. $(\frac{3}{2}, \frac{1}{2})$, $(-\frac{1}{2}, \frac{1}{3})$

Find the equation of each line described. Express each equation in point-slope form $y-y_1=m(x-x_1)$.

46. slope 3, passes through (2, 4)
47. slope -3, passes through $(-2, 4)$
48. slope 4, passes through $(-1, -2)$
49. slope -5, passes through (7, -5)
50. slope $\frac{3}{4}$, passes through $(-1, 5)$
51. slope $-\frac{1}{5}$, passes through (4, -7)
52. passes through (4, 5) and (8, -3)
53. passes through (5, -2) and (0, 2)
54. passes through (0, 5) and (5, 0)
55. passes through (0, 0) and $(-3, -1)$

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56. Find the equation in standard form of a line passing through (4, 6) and parallel to the line $20x - 2y = 5$.

57. Find the equation in standard form of a line passing through (4, –6) and parallel to the line $20x - 2y = 5$

58. Find the equation in standard form of a line having slope 5 and x – intercept 4.

59. Find the equation in standard form of a line having slope –5 and x – intercept 4.

60. Find the equation in standard form of a line having x – intercept –6 and y – intercept 4.

61. Find the equation in standard form of a line having x – intercept 6 and y – intercept –4.

62. Find the equation of a horizontal line passing through (3, –2).

63. Find the equation of a vertical line passing through (3, –2).

64. Find the equation of a vertical line passing through (–2, 3).

65. Find the equation of a horizontal line passing through (–2, 3).

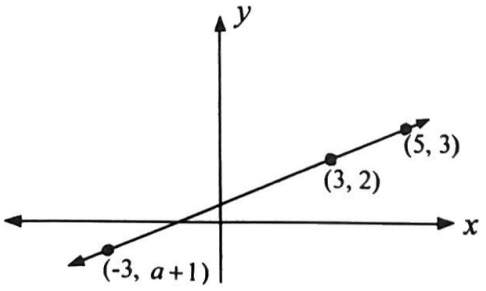
66. Find a if two points (3, 2) and (–2, a) are on a line having slope 2.

67. Find a if two points (3, 2) and (a, –2) are on a line having slope 2

68. Find a if two points (3, 2) and (–2, $a+1$) are on a line having slope –2.

69. Find a if three points (–1, 3), (–3, 2), and (–4, $a-5$) are on a line.

70. Find a



Roger was absent yesterday.
Teacher: Roger, why were you absent ?
Roger: My tooth was aching.
I went to see my dentist.
Teacher: Is your tooth still aching ?
Roger: I don't know. My dentist has it.