

13. a. Answers may vary. Sample: Aisha will move 3 units down and 4 units to the right to find the second point. Carolina will move 3 units up and four units to the left to find the second point.

b. Yes; they both find two points on the same line using the equation.

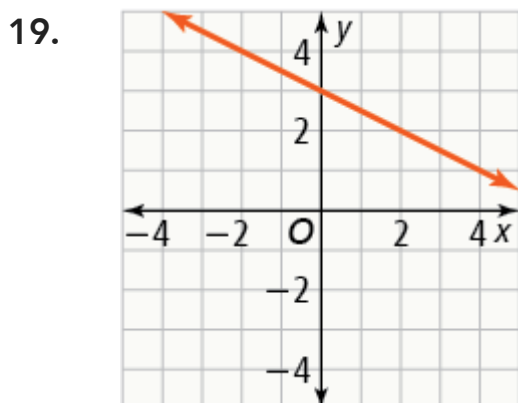
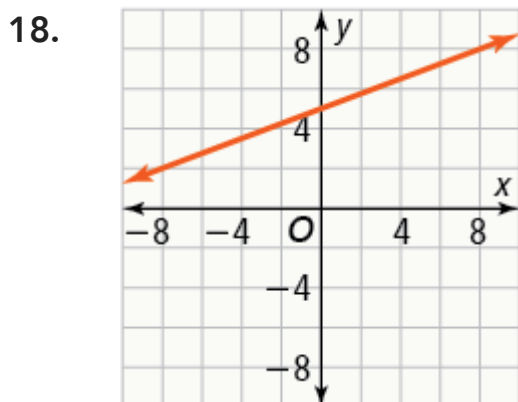
14. $y = -1.25x - 4.25$

15. The y -intercept should be plotted at $(0, -6)$, not $(0, 6)$. The second point would be at

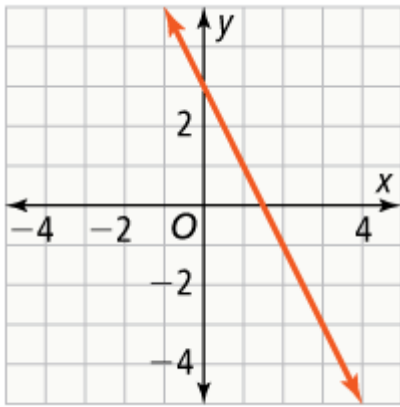
$(4, -9)$.

16. $y = -\frac{3}{4}x + 5$

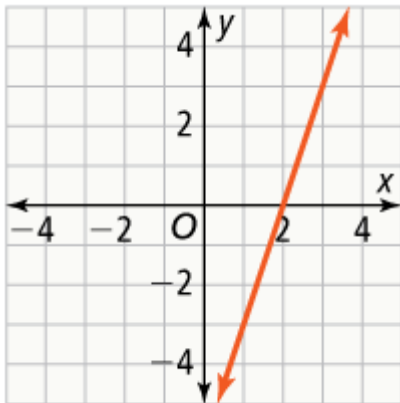
17. $b = 6, n = 2.5, p = 4.5$



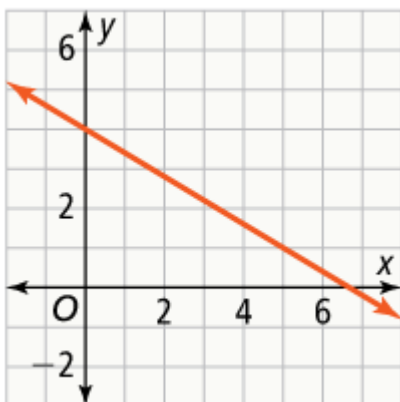
20.



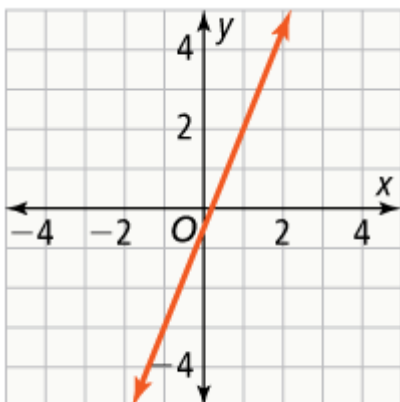
21.



22.



23.



24. $y = -\frac{1}{3}x + 1$

25. $y = 2x + 3$

26. Use two points, such as (0, 3) and (1, 1), shown on the line to find the equation of the line.

The slope is $m = \frac{1-3}{1-0} = -2$.

The line intersects the y -axis at (0, 3), so the y -intercept b is 3.

The equation of the line in slope-intercept form is $y = -2x + 3$.

27. $y = 3x - 3$

28. $y = \frac{1}{2}x + 1$

29. $y = -2x - 5$

30. $y = -\frac{1}{2}x + 2$

31. $y = \frac{8}{3}x - \frac{2}{3}$

32. $y = 2x - \frac{3}{4}$

33. $y = -1.5x + 4.5$

34. $y = -4x + 25$; The y -intercept represents the total distance, 25 miles, Jordan has to go from the start of the trail.

35. Plan A: $y = -60x + 660$; Plan B: $y = -70x + 840$; Plan A will take less time. Even though the payments are larger for Plan B, the down payment reduces the total payment time from 12 weeks to 11 weeks.

36. $y = -6x + 8$

37. Luis's ride: $y = -7.5x + 15$; Raul must ride at a speed of 5 miles per hour.

38. D, E

39. C

40. **Part A** $y = -\frac{5}{8}x + 15$

Part B The y -intercept gives the level when the dispenser is full, which is 15 inches.

Part C No, the level will be at $3\frac{3}{4}$ inches after 18 hours.

Substitute 18 for x in the equation gives $y = 3\frac{3}{4}$.