

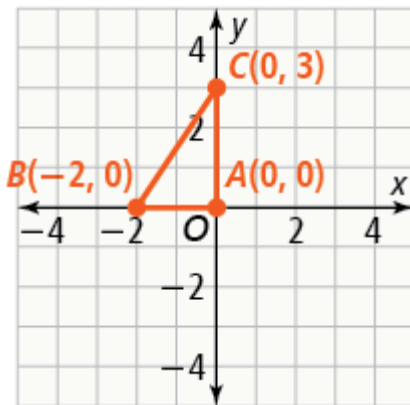
10. a.  $A = 6, B = -8 ; 6x - 8y = 24$

b.  $A = 8, B = 12 ; 8x + 12y = 24$

11. Darren can solve the second equation for  $y$  to verify that it is identical to the first equation.

12. The student forgot to keep the negative sign for  $-6y$  in step 2. The  $y$ -intercept is  $-2$ .

13.  $B(-2, 0)$  and  $C(0, 3)$



14. Find slope by solving the linear equation in standard form for  $y$  and writing it in slope-intercept form. Slope is  $-\frac{A}{B}$ , or  $-\frac{5}{2}$ .

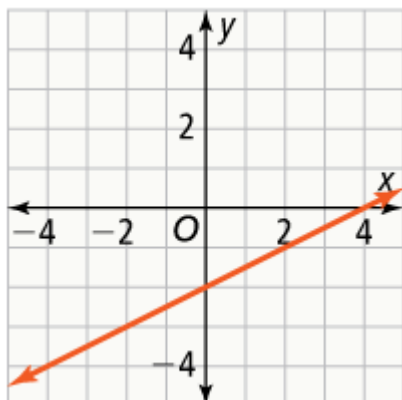
15.  $x$ -intercept: 5;  $y$ -intercept: 2

16.  $x$ -intercept:  $-8$ ;  $y$ -intercept: 6

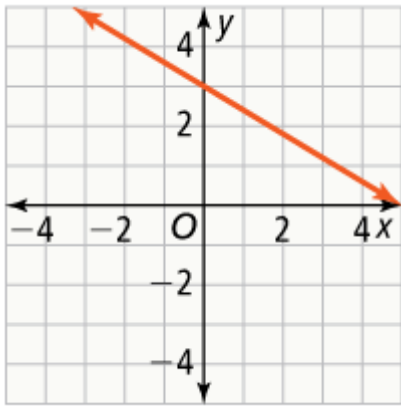
17.  $x$ -intercept: 12;  $y$ -intercept: 24

18.  $x$ -intercept: 4;  $y$ -intercept:  $-8$

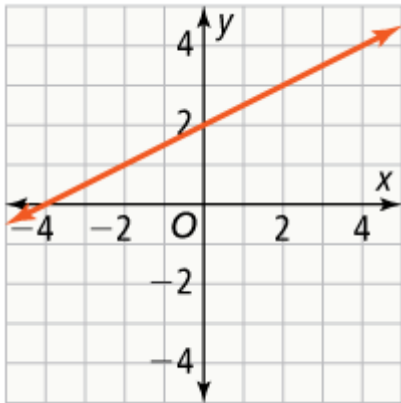
19.



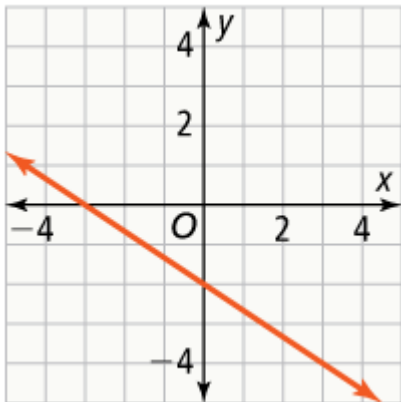
20.



21.



22.



23. line D

24. line A

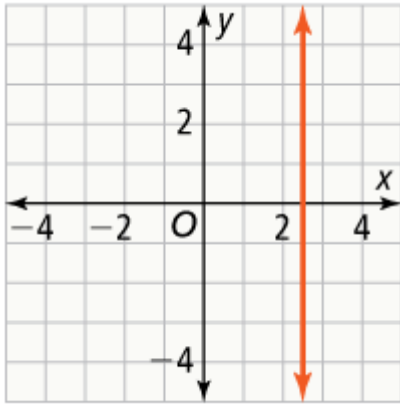
25. line C

26. line B

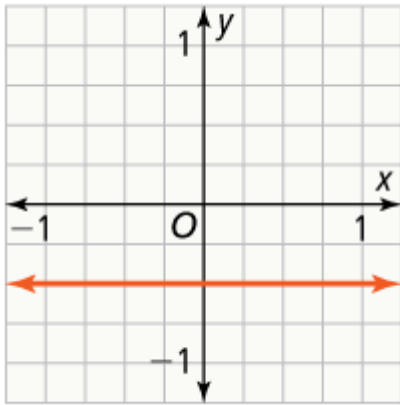
27. The graph of  $x = 2$  is a graph of the form  $Ax + By = C$  when  $B = 0$ , so the graph is vertical line.

28. The graph of  $y = -2$  is a graph of form  $Ax + By = C$  when  $A = 0$ , so the graph is a horizontal line.

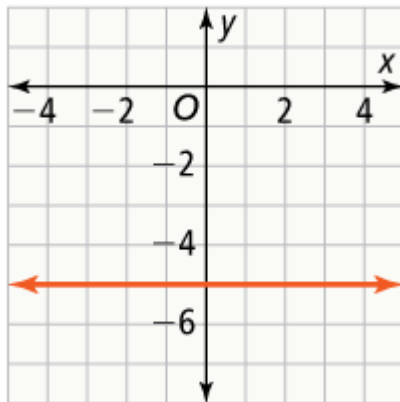
29.



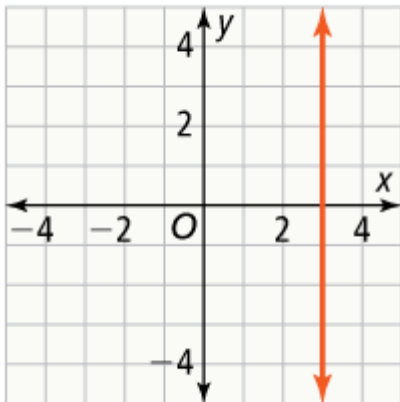
30.



31.



32.



33.  $4x - y = 18$

34.  $4x - 7y = -3$

35.  $x + 2y = -20$
36.  $2x - 3y = -15$
37.  $x + 4y = 8$
38.  $2x + 3y = 12$
39.  $-7x + 3y = -21$
40.  $x = 2$
41. 10 lb; 6 lb;  $3x + 5y = 30$ , where  $x$  is pounds of Cheddar and  $y$  is pounds of Swiss.
42.  $2x + 4y = 12$ , where  $x$  is pounds of wheat flour and  $y$  is pounds of rye flour.
43. He can use the equation  $12x + 20y = 300$ , where  $x$  is number of hats and  $y$  is number of T-shirts. Because hats and T-shirts cannot be bought in fractions or in negative amounts, solutions only correspond to points on the line where  $x$  and  $y$  are whole numbers.
44. A, B, C, D
45. E
46. **Part A** mango and pineapple:  $0.5x + 0.75y = 8$ ; mango and strawberry:  $0.5x + y = 8$ ; pineapple and strawberry:  $0.75x + y = 8$
- Part B** mango and pineapple:  $10\frac{2}{3}$ –16 cups; mango and strawberry: 8–16 cups; pineapple and strawberry: 8– $10\frac{2}{3}$  cups
- Part C** mango and pineapple or mango and strawberry; Since Fatima will be using liquid to double the volume of the smoothies, she needs at least 12 cups of fruit to make at least 24 cups of smoothies. The ranges in cups of mango and pineapple and mango and strawberry include totals of at least 12 cups.