Name: _____ Class: _____ Date: _____ ID: B

Algebra 2 - Chapter 2 Test - Mr. Lee

Study Guide

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. In slope-intercept form, write the equation of the line that contains the points in the table.

x	−2	0	2	4	6
y	−3	1	5	9	13

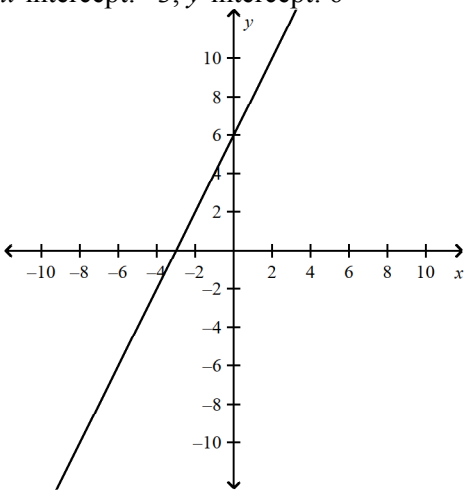
a. $y = 2x + 1$
b. $y = x + 2$
c. $y = 2x - 1$
d. $y = -x - 2$

____ 2. Dan paid a total of $25.80 last month for his international calls. He makes international calls only to England. Dan pays $0.06 per minute in addition to $10.98 fixed monthly payment. How many minutes of international calls did Dan make last month?

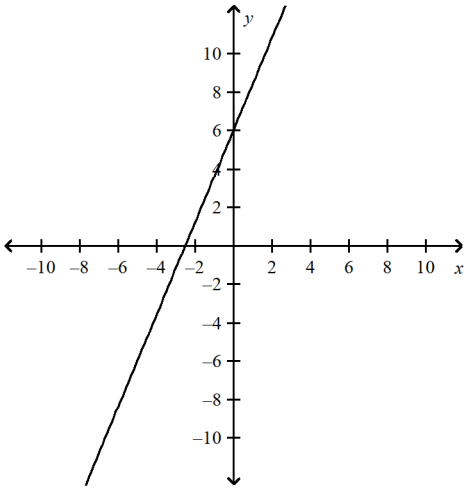
a. 247 minutes
b. 430 minutes
c. 613 minutes
d. 419 minutes

____ 3. Find the intercepts of $-4x + 2y = 12$, and graph the line.

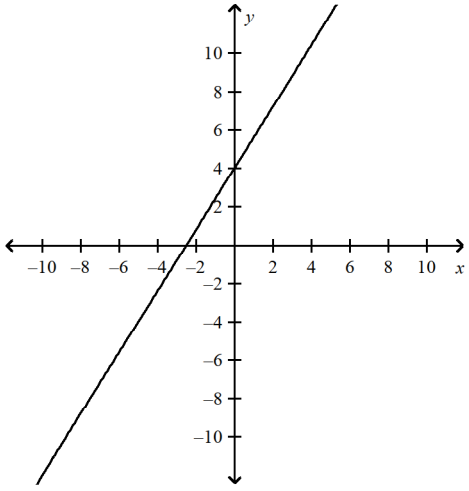
a. x-intercept: -3, y-intercept: 6



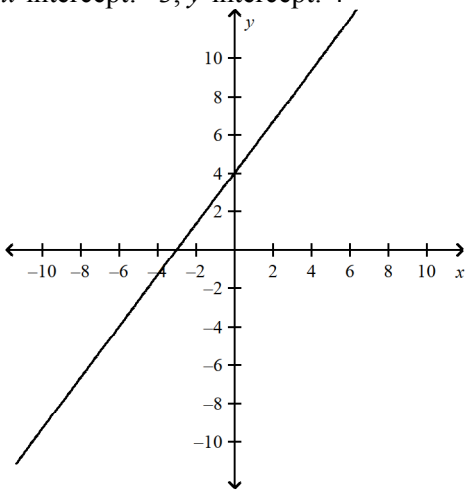
b. x-intercept: $-\frac{5}{2}$, y-intercept: 6



c. x-intercept: $-\frac{5}{2}$, y-intercept: 4



d. x-intercept: -3, y-intercept: 4



____ 4. Solve $5(21 + 7x) = -70$.

a. $x = -5$
b. $x = 1$
c. $x = -13$
d. $x = -25$

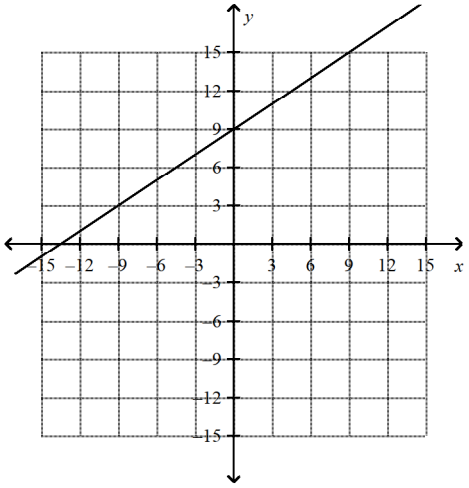
____ 5. Determine whether the data set could represent a linear function.

x	***f(x)***
0	4
1	5
1	6
2	8

a. Yes, the data set could represent a linear function.
b. The data set is constant.
c. Cannot be determined
d. No, the data set does not represent a linear function.

____ 6. Graph the line with slope $\frac{2}{3}$ that passes through (–3, 7).

a.



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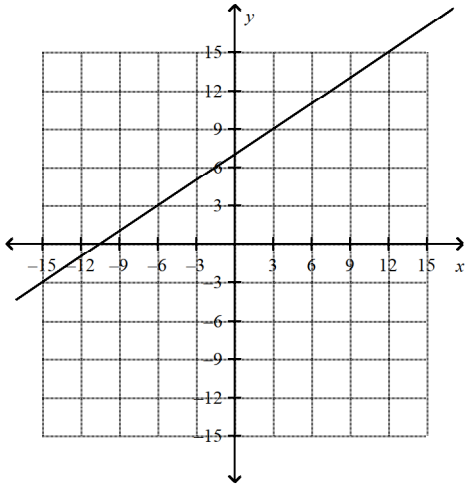

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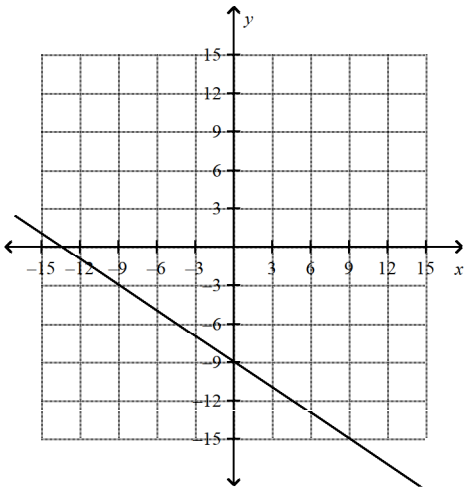
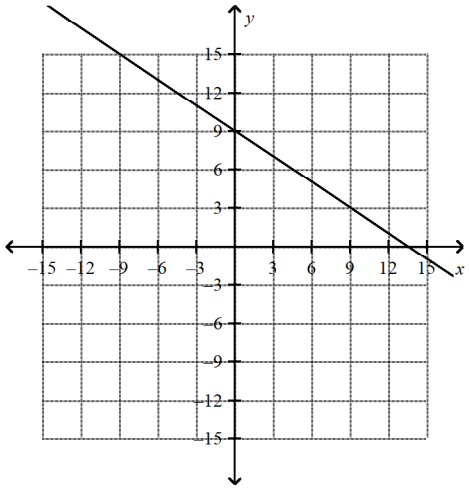
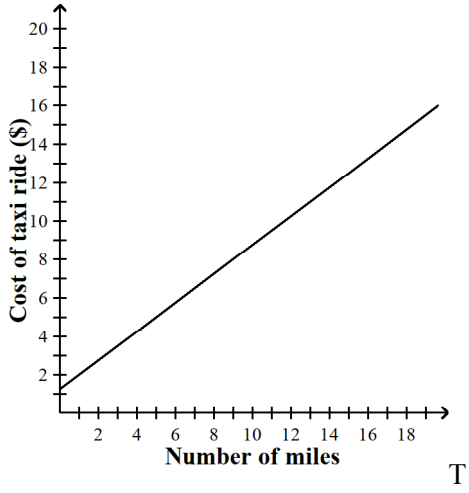


d.



____ 7. After the first three miles, the cost of a taxi ride is a linear function of the trip length. Express the taxi cost as a function of the trip length. Graph the relationship between the taxi cost and the trip length. If a 5-mile ride costs $5.00 and a 10-mile ride costs $8.75, how much does a 16-mile ride cost?

a. $y = 0.75x + 1.25$



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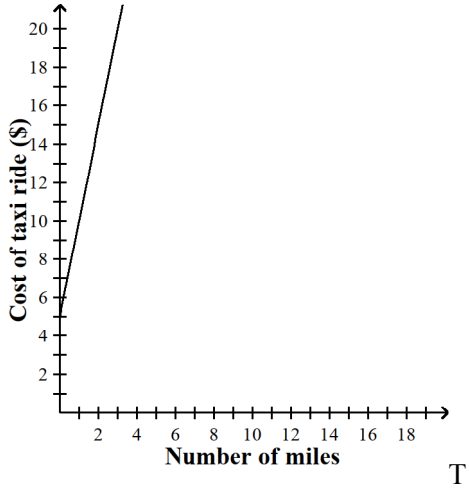
he 16-mile ride costs $13.25.

b. $y = 5x + 5$



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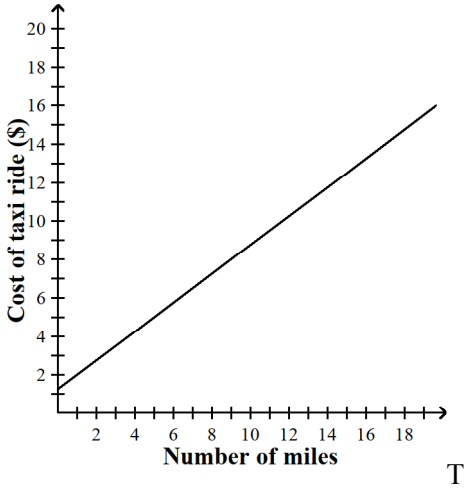
he 16-mile ride costs $15.00.

c. $y = 10x + 8.75$



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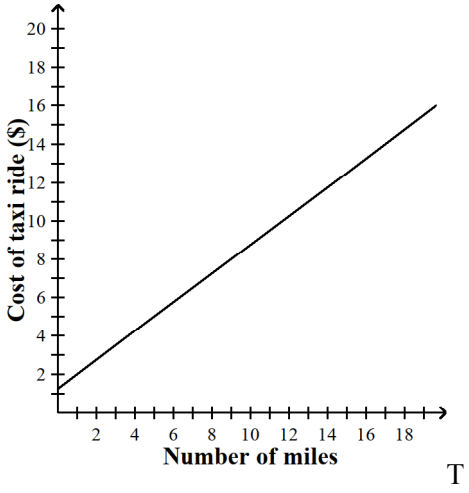
he 16-mile ride costs $14.00.

d. $y = 0.75x + 1.25$



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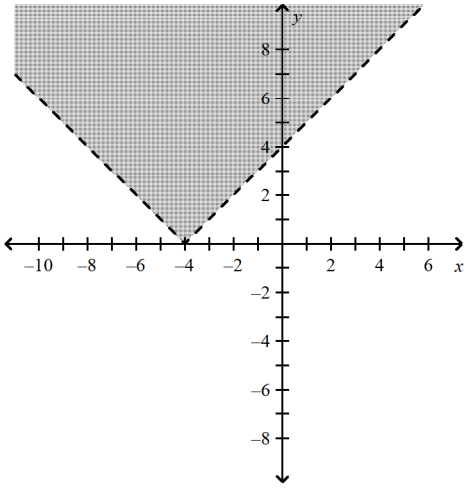
he 16-mile ride costs $12.50.

____ 8. Graph $y < |x + 4|$.

a.



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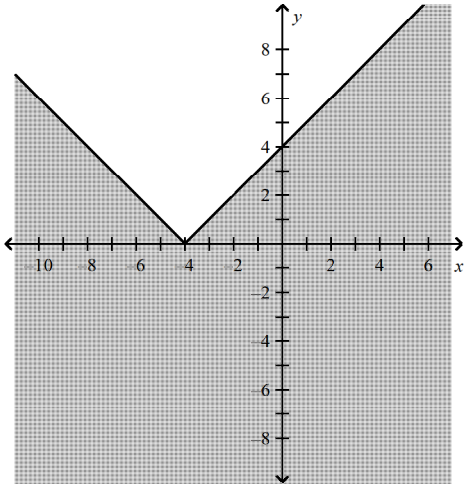

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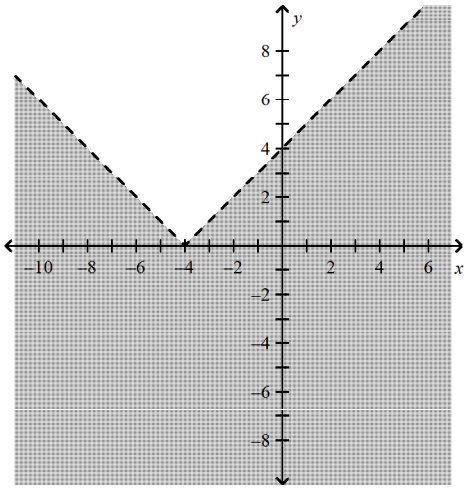
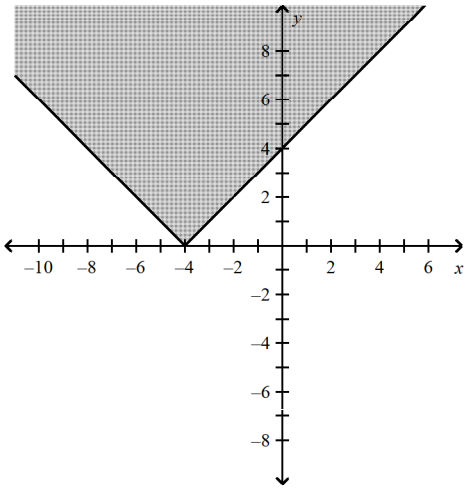


d.



____ 9. Solve $7t + 16 = 28 + 37t$.

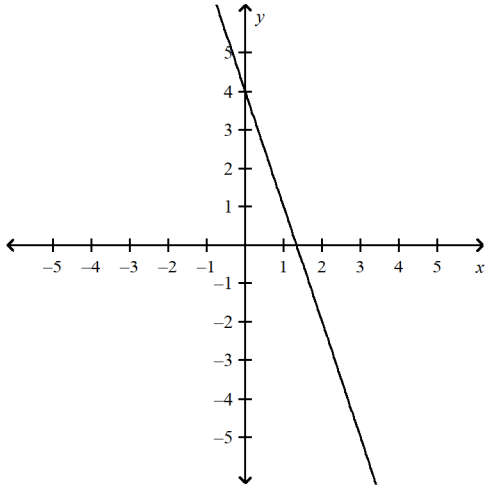
a. $t = -\frac{2}{5}$

b. $t = -\frac{3}{11}$

c. $t = -0$

d. $t = 1\frac{7}{15}$

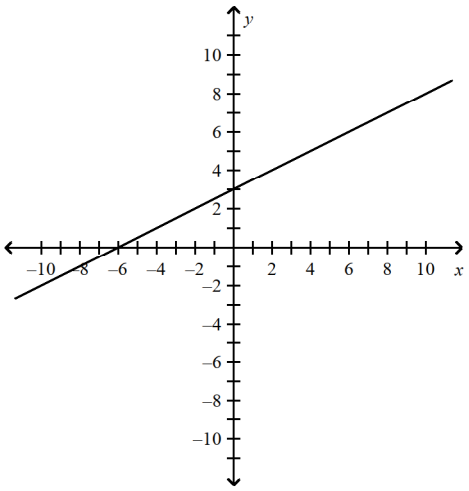
____ 10. Write the equation of the graphed line in slope-intercept form.



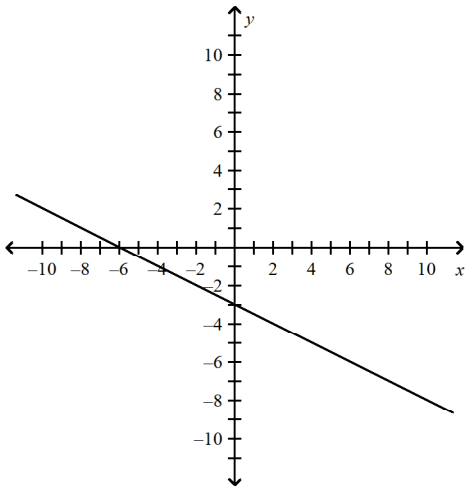
a. $y = -3x + 4$
b. $y = 3x - 4$
c. $y = 4x - 3$
d. $y = -4x + 3$

____ 11. Write the function $4x + 8y = 24$ in slope-intercept form. Then graph the function.

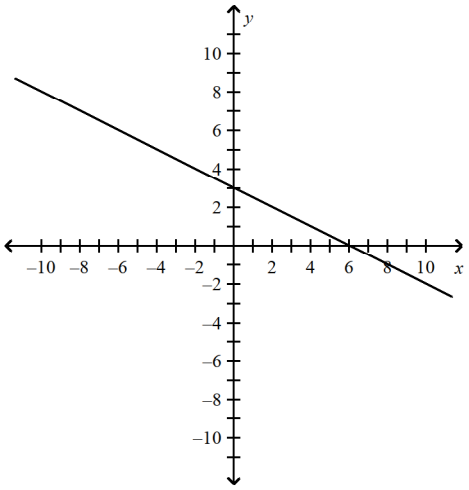
a. $y = -\frac{1}{2}x + 3$



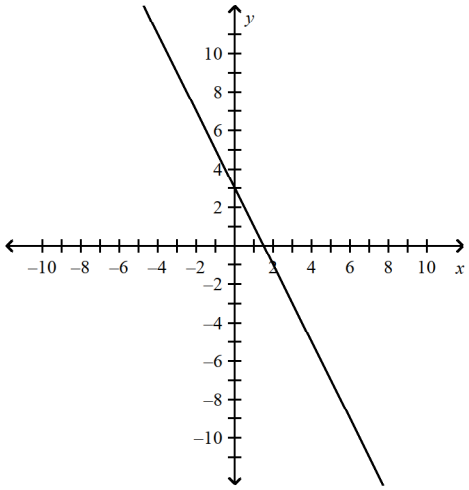
c. $y = -\frac{1}{2}x + 3$



b. $y = -\frac{1}{2}x + 3$

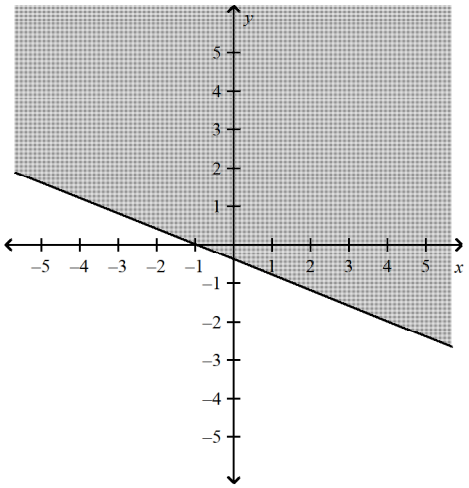


d. $y = -\frac{1}{2}x + 3$

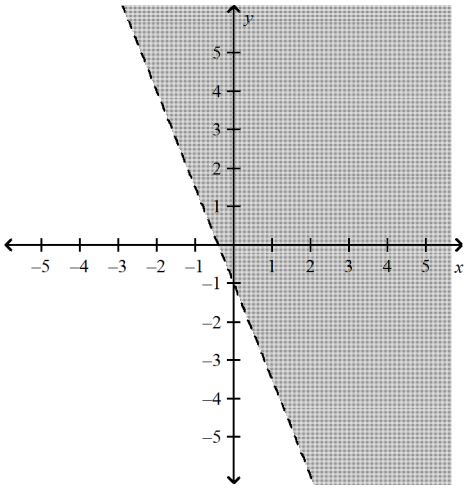


____ 12. Graph $14x + 35y > -14$ using intercepts.

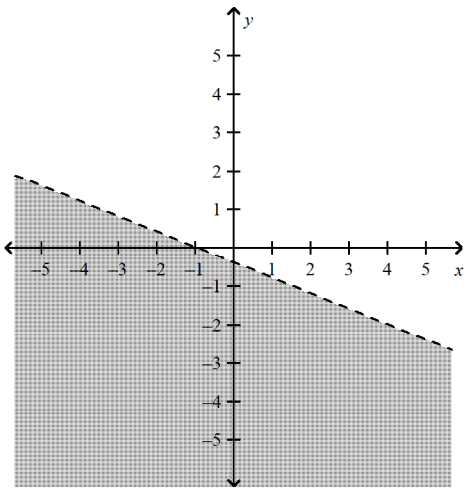
a.



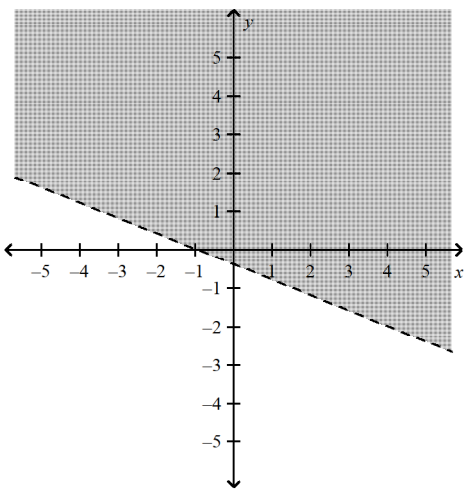
c.



b.



d.



____ 13. Find the slope of the line that passes through the points (1, 3) and (9, 7).

a. 2

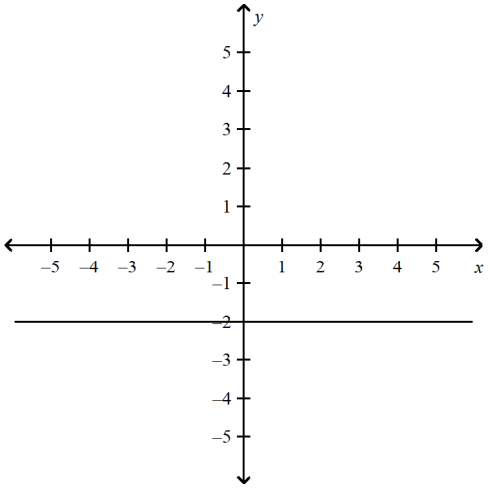
b. –2

c. $\frac{1}{2}$

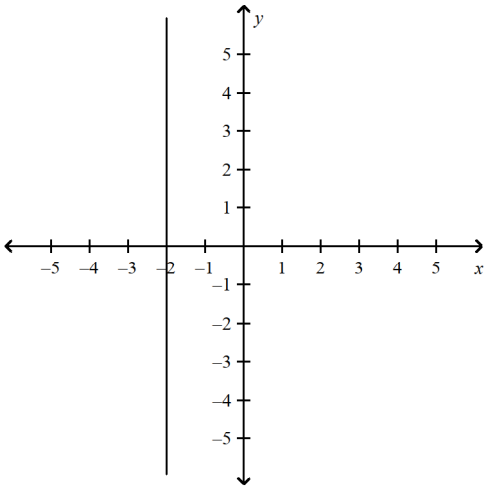
d. 1

____ 14. Determine if $x = 2$ is vertical or horizontal. Then graph.

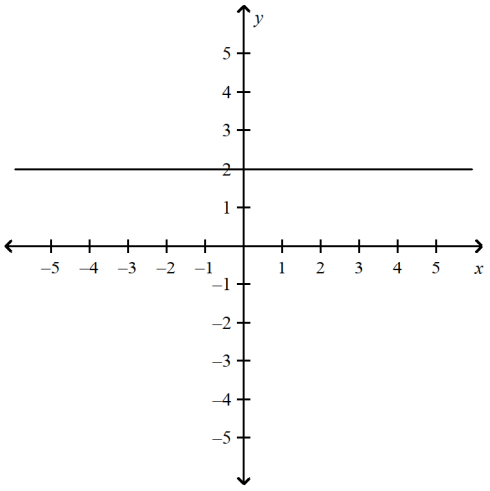
a. The line is horizontal.



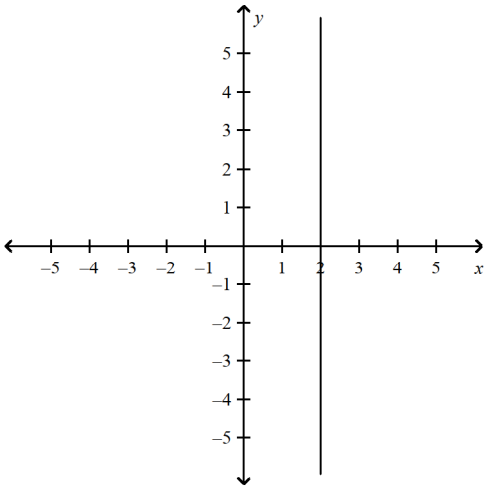
b. The line is vertical.



c. The line is horizontal.

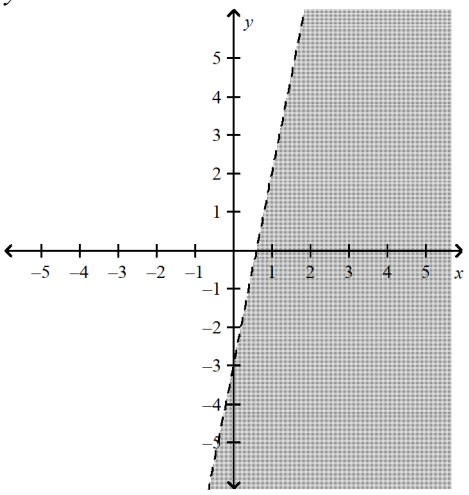


d. The line is vertical.

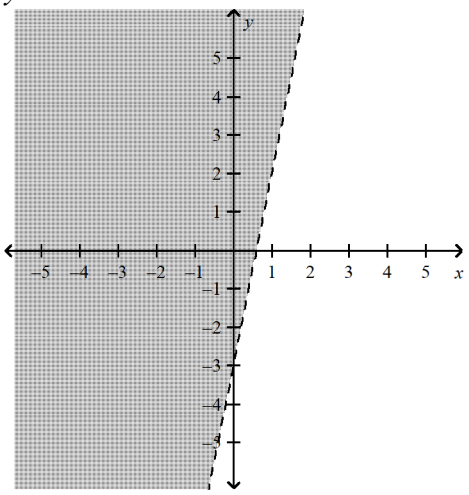


____ 15. Solve $\frac{2}{3}(5x - y) < 2$ for y. Graph the solution.

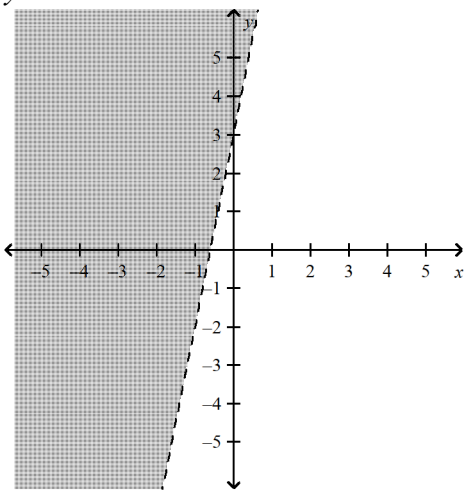
a. $y < 5x - 3$



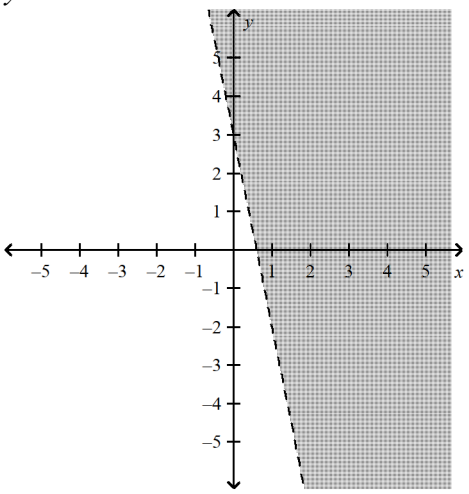
c. $y > 5x - 3$



b. $y > 5x + 3$



d. $y > -5x + 3$



____ 16. In slope-intercept form, write the equation of the line that is parallel to $y = 5x + 7$ and passes through (–2, –4).

a. $y = 5x + 6$

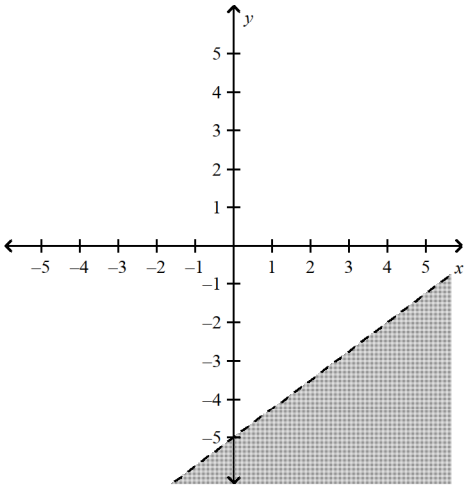
b. $y = \frac{1}{5}x - 3\frac{3}{5}$

c. $y = 5x + 9$

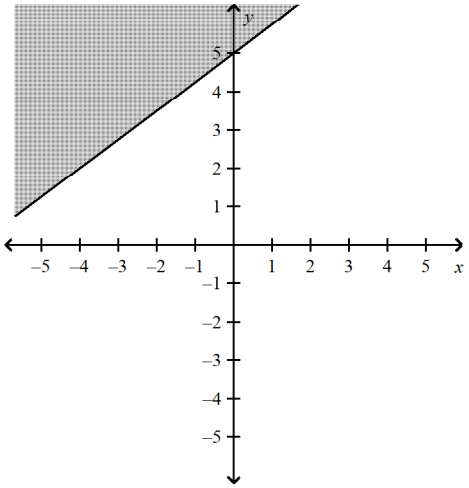
d. $y = -\frac{1}{5}x - 4\frac{2}{5}$

____ 17. Graph the inequality $y > \frac{3}{4}x - 5$.

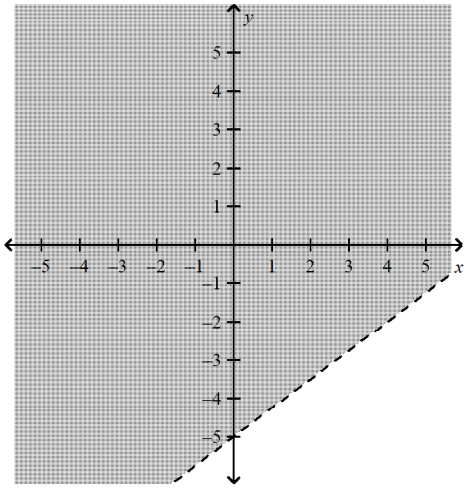
a.



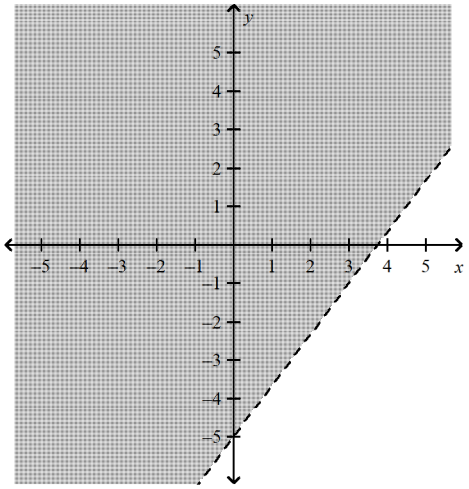
c.



b.

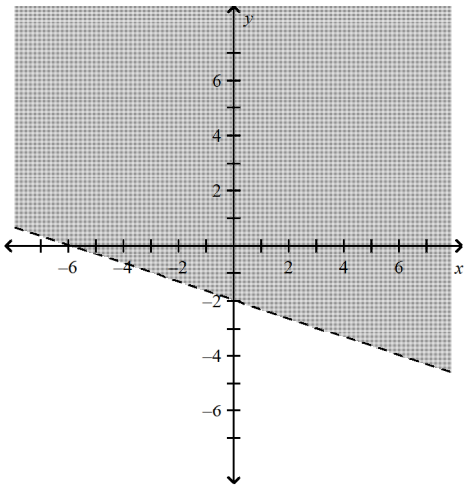


d.



____ 18. Graph the inequality $5(5x-4y)<3(2+8x)-17y$.

a.



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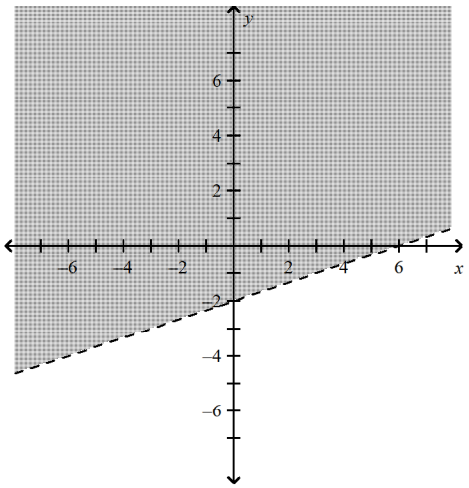
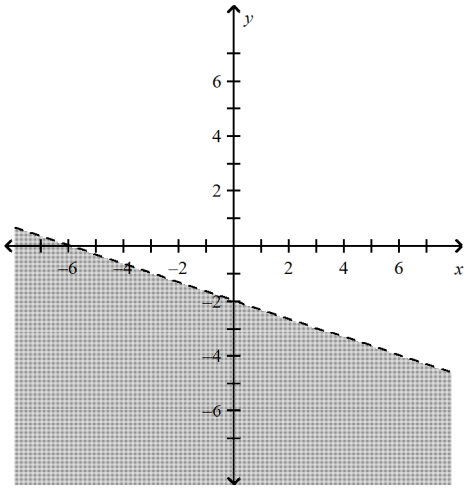


b.



d.