

Linear Functions REVIEW

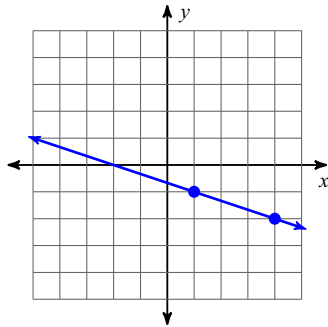
Select the equation that best represents the situation.

1) Mr. Allen-Black has \$950 in his bank account. He has set up an automatic payment of \$80 per month to pay for his Disney annual passes. Find the best equation if x represents the number of months, and b represents the balance in his bank account.

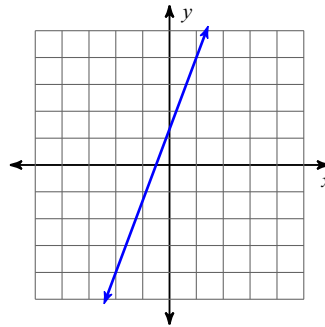
- A) $b = 950 - 80x$ B) $b = 80 + 950x$ C) $b = -80 + 950x$ D) $b = 905 + 80x$

Find the slope of each line.

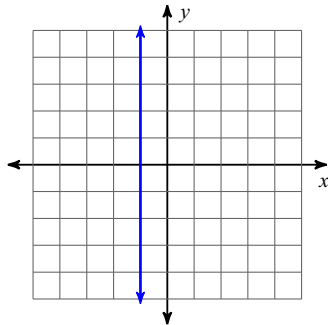
2)



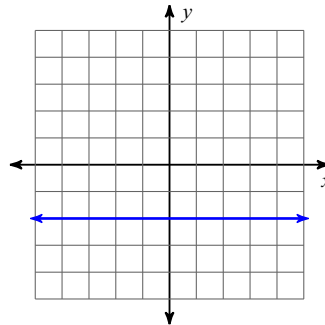
3)



4)



5)



Find the slope of the line through each pair of points.

6) $(-1, 7), (-7, -16)$

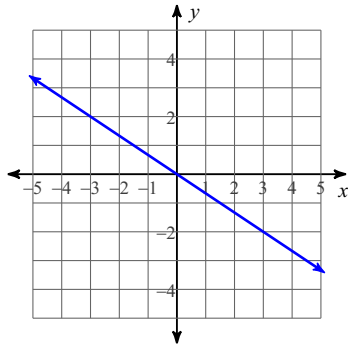
7) $(7, 12), (-3, -8)$

8) $(11, -3), (11, 14)$

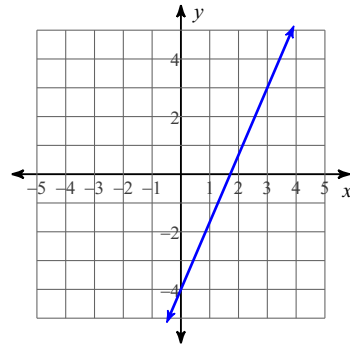
9) $(9, -7), (-3, -7)$

Write the slope-intercept form of the equation of each line.

10)

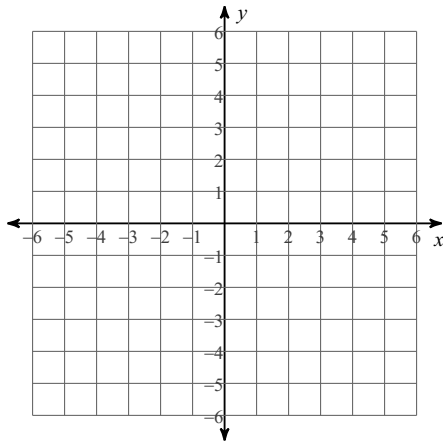


11)

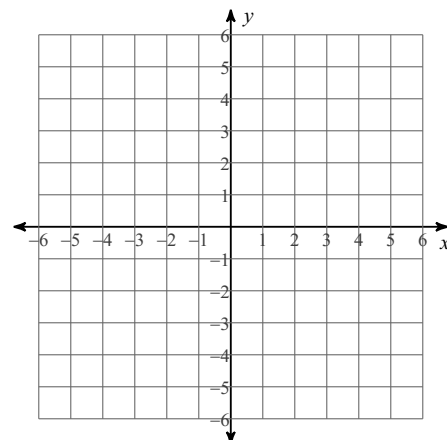


Sketch the graph of each line.

12) $y = -\frac{2}{5}x - 3$



13) $y = -2x - 2$



Select the equation that best represents the situation.

- 14) Alykhan works at a high-end retail shop. He makes \$13 per hour, plus \$3 for each item he sells. Find the best equation if x represents the number of items he sells in an hour, and $p(x)$ represents this total pay for the hour.

A) $p(x) = 13x - 3$ B) $p(x) = 13x + 3$ C) $p(x) = 13 + 3x$ D) $p(x) = 13 - 3x$

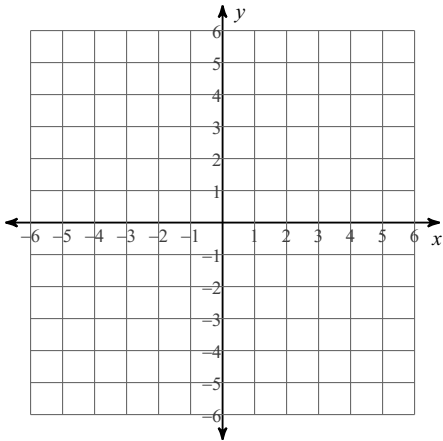
Write the slope-intercept form of the equation of each line.

15) $14x - y = 8$

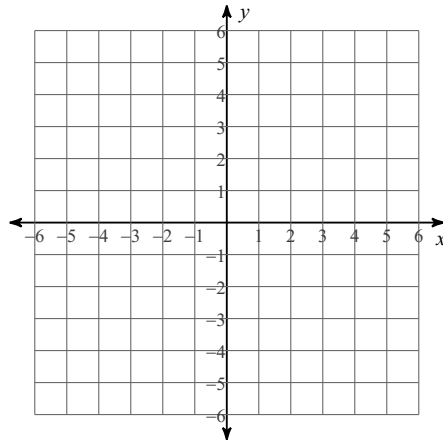
16) $4x + 3y = -9$

Sketch the graph of each line.

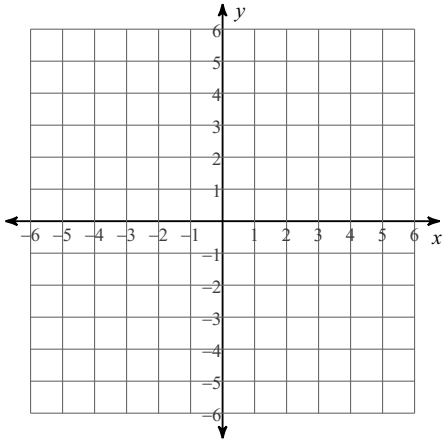
17) $3x - y = 1$



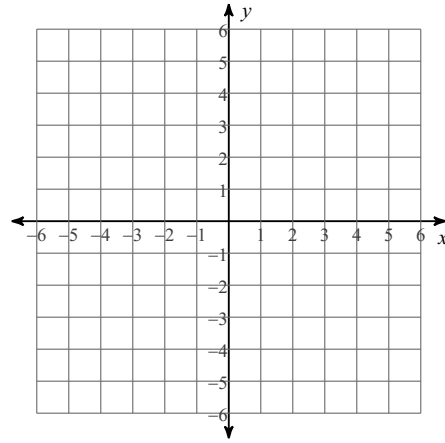
18) $8x - 5y = -20$



19) $x = -3$



20) $5x + 3y = -12$



Select the equation that best represents the situation.

21) Mr. Spell has been separated from his mother for three months. He is finally taking a trip on Amtrak to see her. The train leaves a station travelling 60 miles per hour. It is 500 miles away from the town where his mom lives. Find the best equation if h represent the number of hours he is traveling on the train, and $d(h)$ represents the distance his is away from his mother's town.

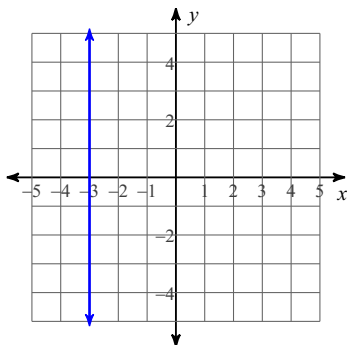
- A) $d(h) = 500 + 60h$ B) $d(h) = 500h - 60$
 C) $d(h) = 500h + 60$ D) $d(h) = 500 - 60h$

Write the standard form of the equation of each line.

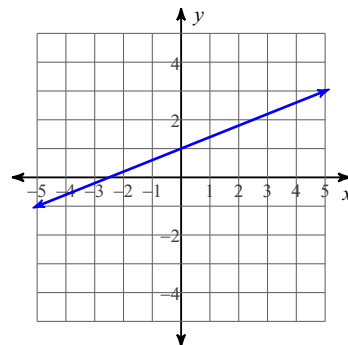
22) $y = 5x + 1$

23) $y = -\frac{1}{2}x - 3$

24)



25)



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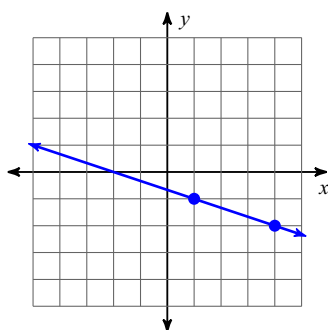
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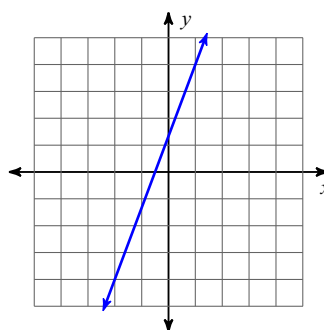
Find the slope of each line.

2)



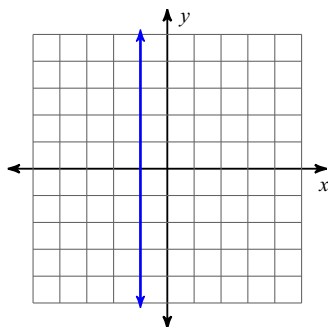
$-\frac{1}{3}$

3)



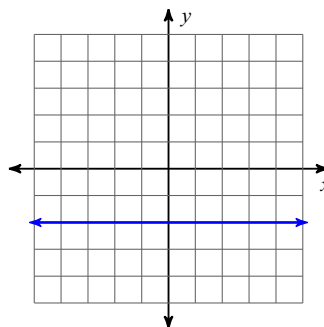
$\frac{8}{3}$

4)



Undefined

5)



0

Find the slope of the line through each pair of points.

6) $(-1, 7), (-7, -16)$

$\frac{23}{6}$

7) $(7, 12), (-3, -8)$

2

8) $(11, -3), (11, 14)$

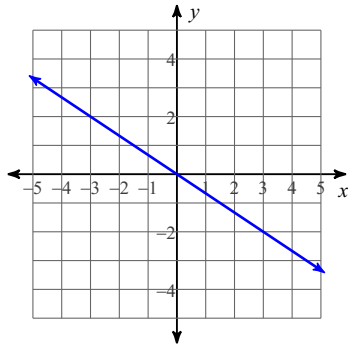
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0

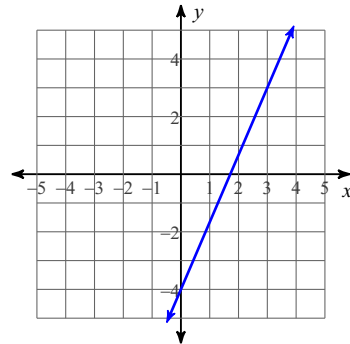
Write the slope-intercept form of the equation of each line.

10)



$$y = -\frac{2}{3}x$$

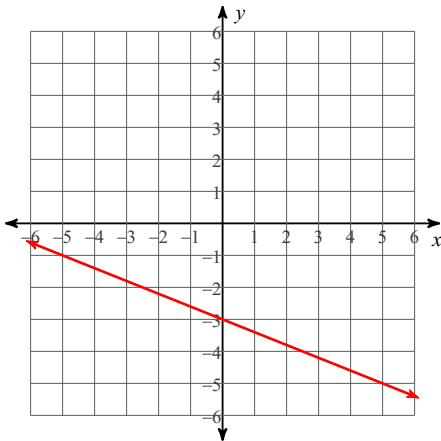
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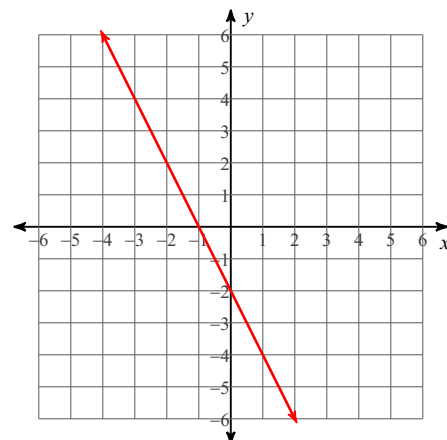
$$y = \frac{7}{3}x - 4$$

Sketch the graph of each line.

12) $y = -\frac{2}{5}x - 3$



13) $y = -2x - 2$



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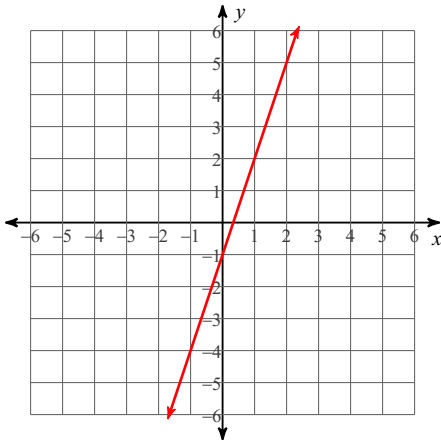
$$y = 14x - 8$$

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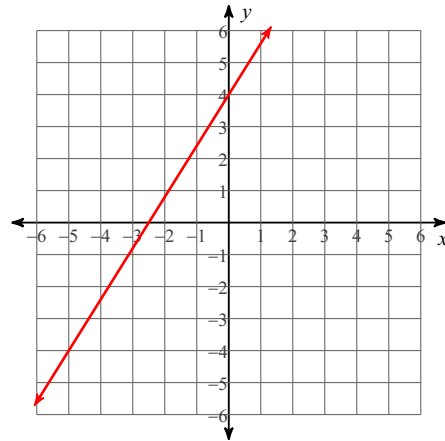
$$y = -\frac{4}{3}x - 3$$

Sketch the graph of each line.

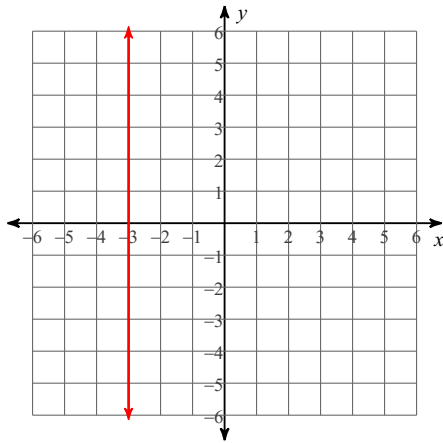
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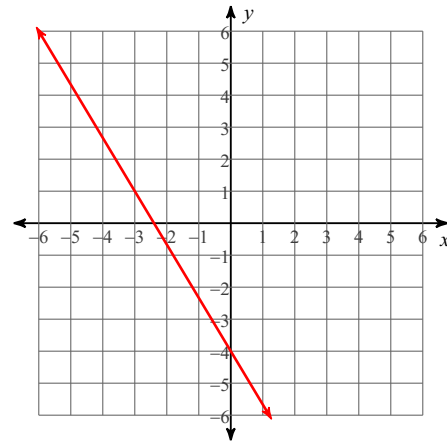
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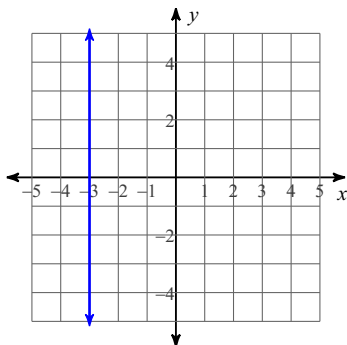
22) $y = 5x + 1$

$5x - y = -1$

23) $y = -\frac{1}{2}x - 3$

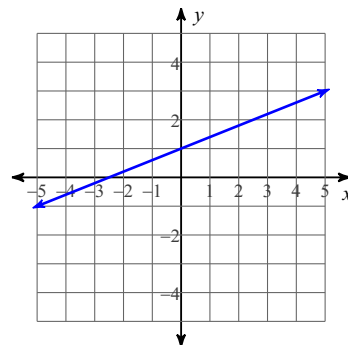
$x + 2y = -6$

24)



$x = -3$

25)



$2x - 5y = -5$