

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

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

- 3) Mr. Cozier 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.

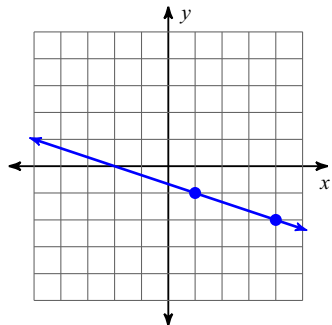
A)  $d(h) = 500 + 60h$       B)  $d(h) = 500 - 60h$   
C)  $d(h) = 500h - 60$       D)  $d(h) = 500h + 60$

- 4) There is a daily fee for renting a moving truck, plus a charge of \$0.50 per mile driven. If driven 48 miles, it costs \$64 to rent a truck. Find the best equation if  $x$  represents the number of miles driven, and  $f$  represents the total fee.

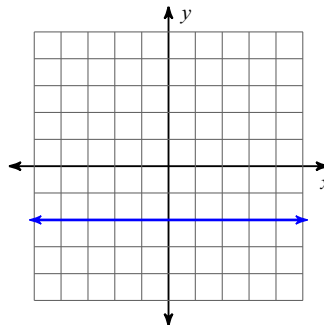
A)  $f = 0.5x + 16$       B)  $f = 0.5x - 40$       C)  $f = 0.5x + 88$       D)  $f = 0.5x + 40$

Find the slope of each line.

5)



6)



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

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

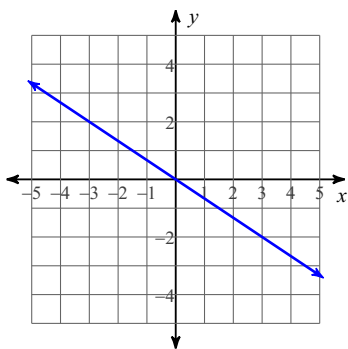
8)  $(7, 12), (-3, -8)$

9)  $(11, -3), (11, 14)$

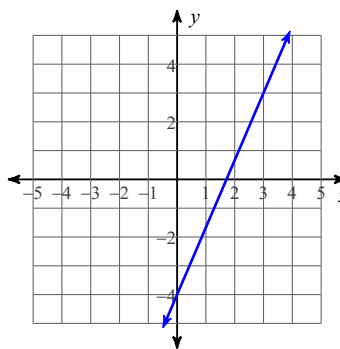
10)  $(9, -7), (-3, -7)$

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

11)

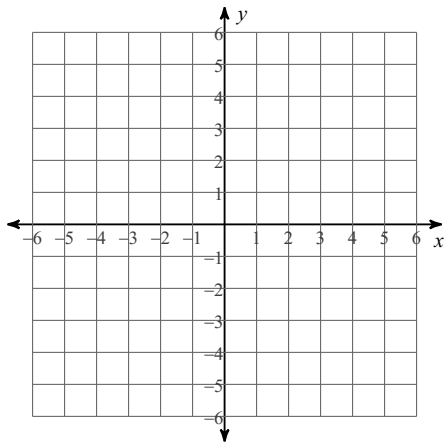


12)

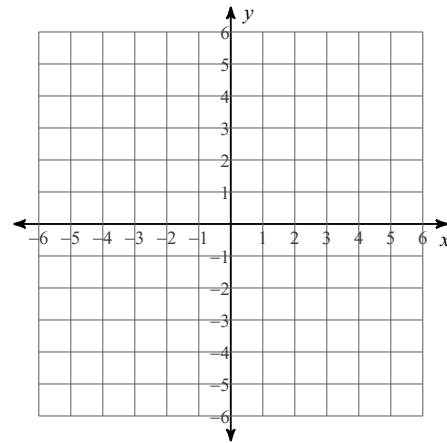


Sketch the graph of each line.

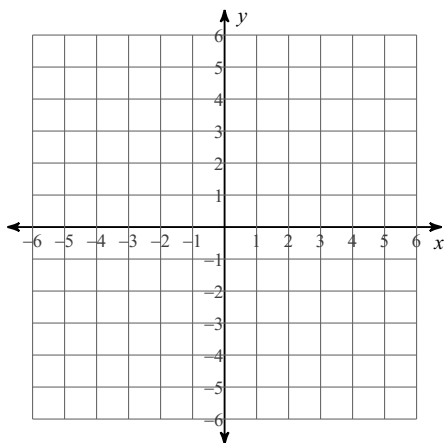
13)  $y = -3x + 3$



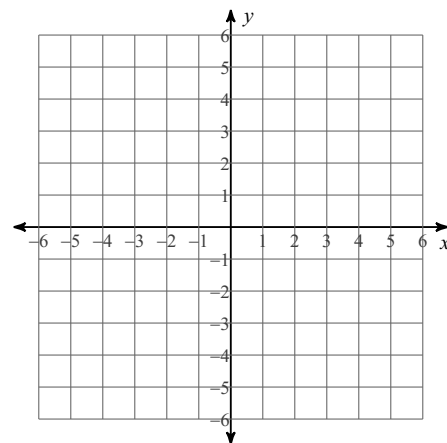
14)  $y = \frac{3}{2}x$



15)  $8x - 5y = -20$

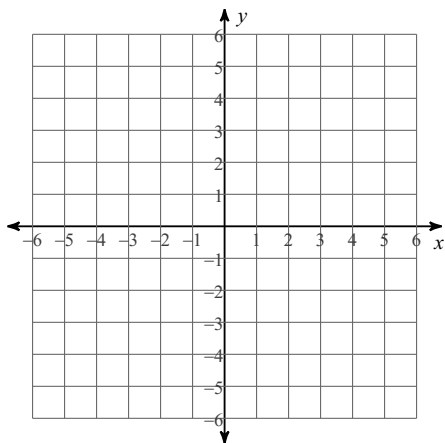


16)  $5x + 3y = -12$

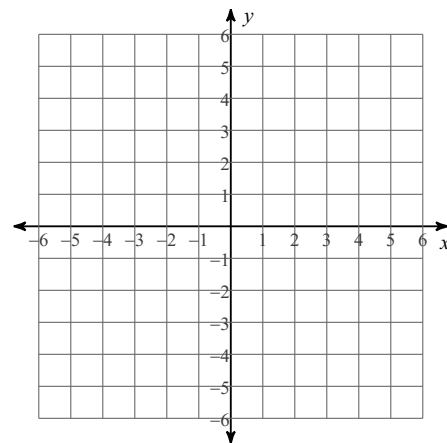


Sketch the graph of each linear inequality.

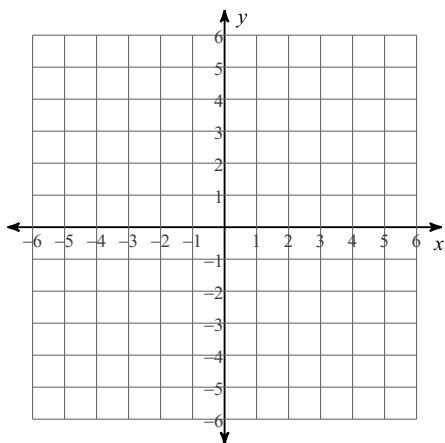
17)  $y \leq -x - 4$



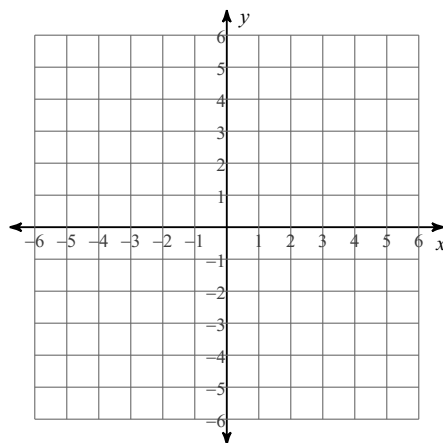
18)  $y > 3x - 4$



19)  $8x - 3y \leq -9$



20)  $3x + 2y > 10$



**Write the slope-intercept form of the equation of the line through the given point with the given slope.**

21) through:  $(2, 2)$ , slope =  $\frac{3}{2}$

**Write the slope-intercept form of the equation of the line through the given points.**

22) through:  $(-3, -3)$  and  $(-2, 1)$

**Write the slope-intercept form of the equation of the line described.**

23) through:  $(-3, 3)$ , parallel to  $y = \frac{2}{3}x - 2$

## Linear Functions REVIEW

Date \_\_\_\_\_ Period \_\_\_\_\_

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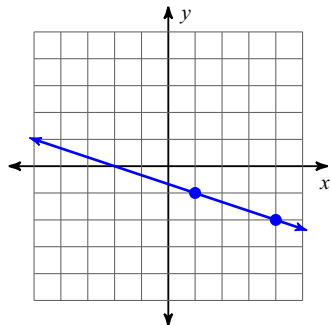
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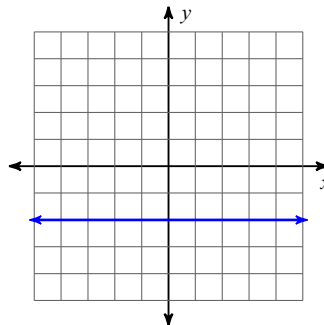
Find the slope of each line.

5)



$$-\frac{1}{3}$$

6)



$$0$$

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

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

$$\frac{23}{6}$$

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

$$2$$

9)  $(11, -3), (11, 14)$

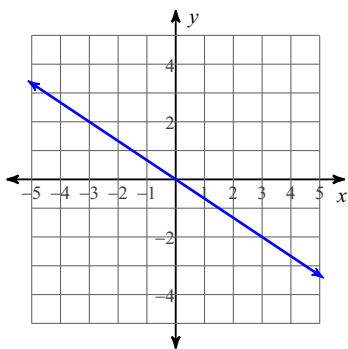
Undefined

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$$0$$

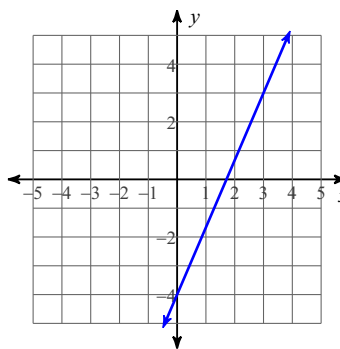
Write the slope-intercept form of the equation of each line.

11)



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

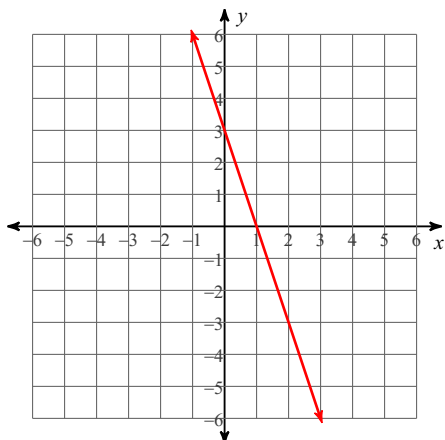
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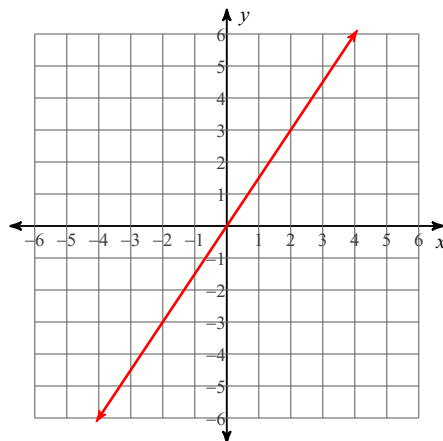
$$y = \frac{7}{3}x - 4$$

Sketch the graph of each line.

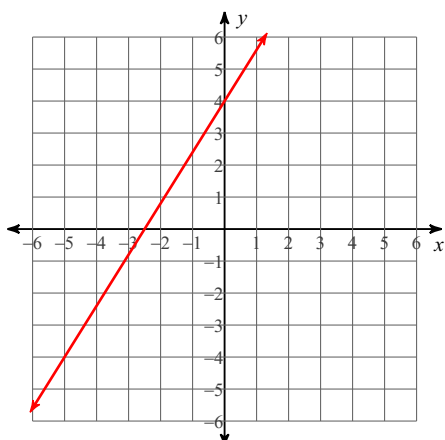
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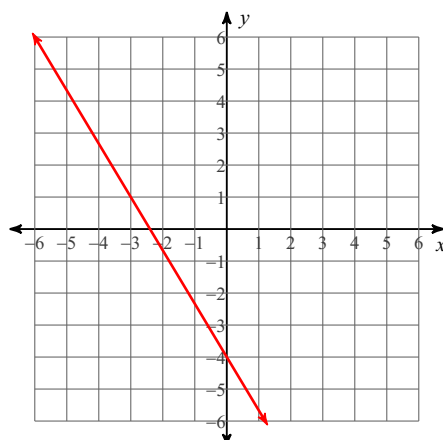
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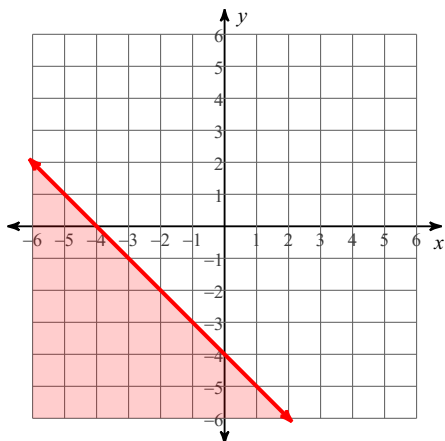


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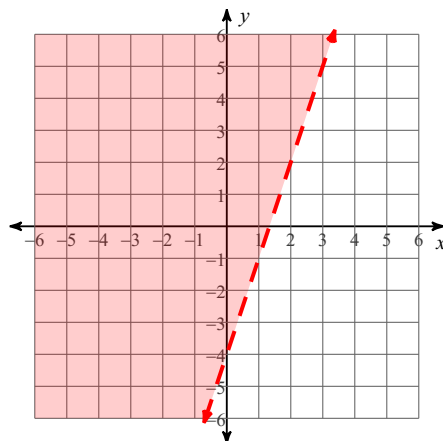


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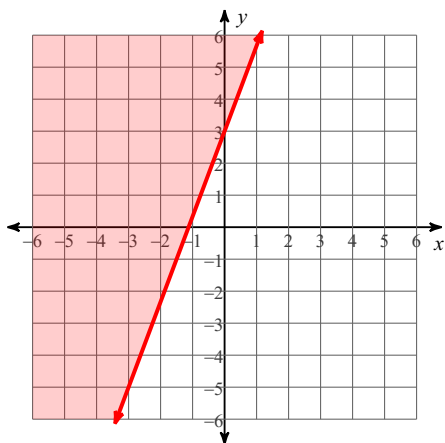
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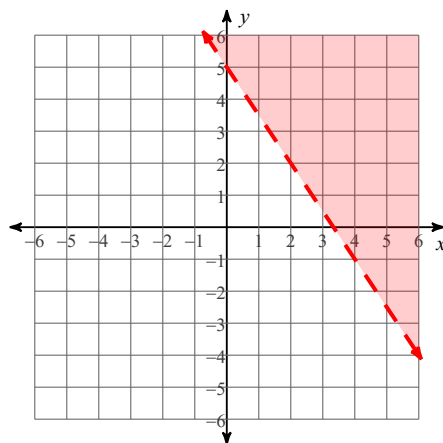
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**Write the slope-intercept form of the equation of the line through the given point with the given slope.**

21) through:  $(2, 2)$ , slope =  $\frac{3}{2}$

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

**Write the slope-intercept form of the equation of the line through the given points.**

22) through:  $(-3, -3)$  and  $(-2, 1)$

$$y = 4x + 9$$

**Write the slope-intercept form of the equation of the line described.**

23) through:  $(-3, 3)$ , parallel to  $y = \frac{2}{3}x - 2$

$$y = \frac{2}{3}x + 5$$