

GRAPHING LINEAR RELATIONS

➤ Label the x and y axis. Label all the arrows necessary to identify that lines and axes extend from and to infinity.

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

Slope = _____

This means _____ up/down

and over _____

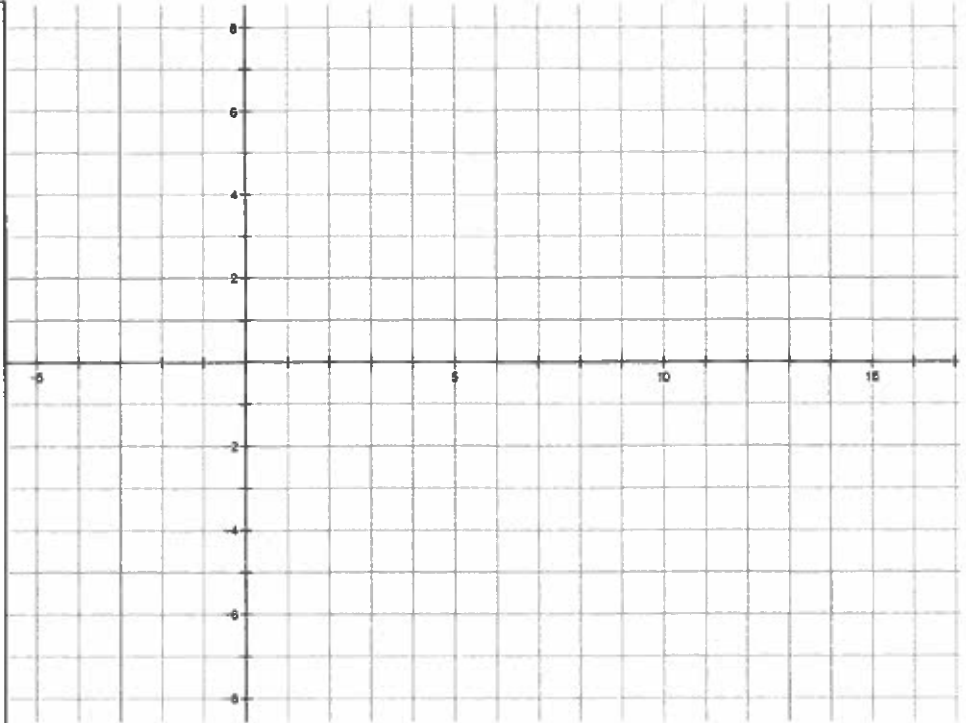
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



2. $y = 0.5x - 3$

Slope = _____

This means _____ up/down

and over _____

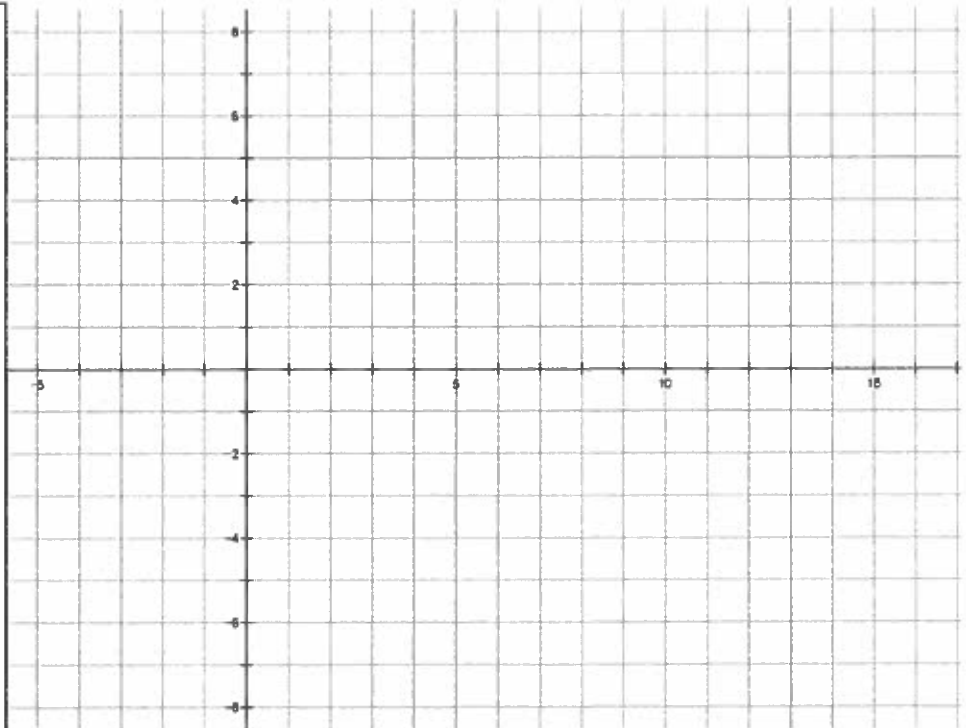
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



3. $y = -1.6x + 1$

Slope = _____

This means _____ up/down

and over _____

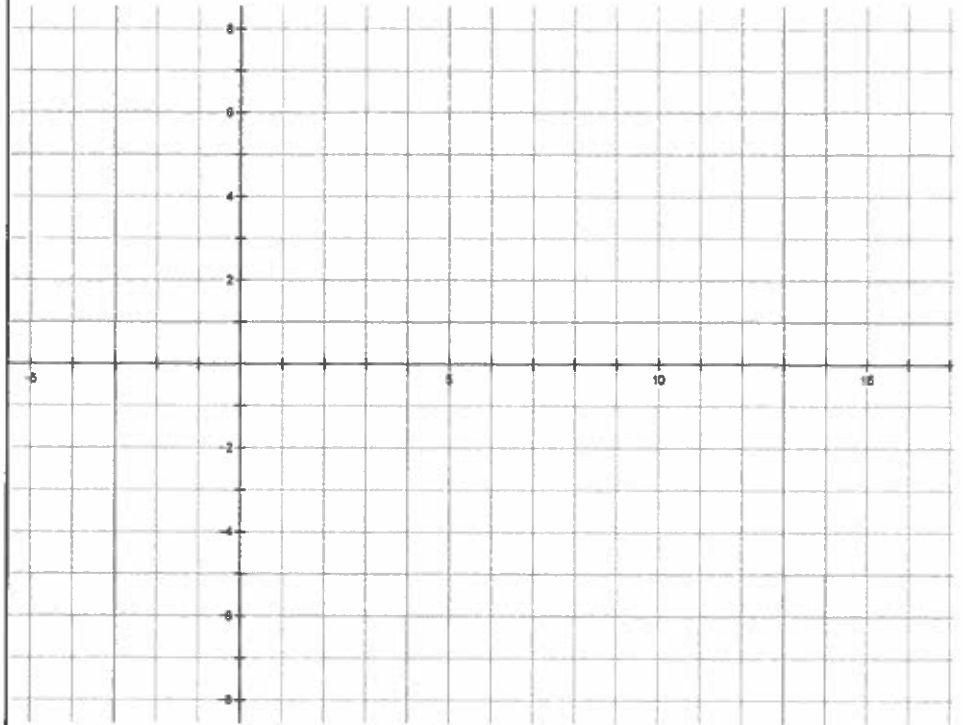
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



4. $y = -4x$

Slope = _____

This means _____ up/down

and over _____

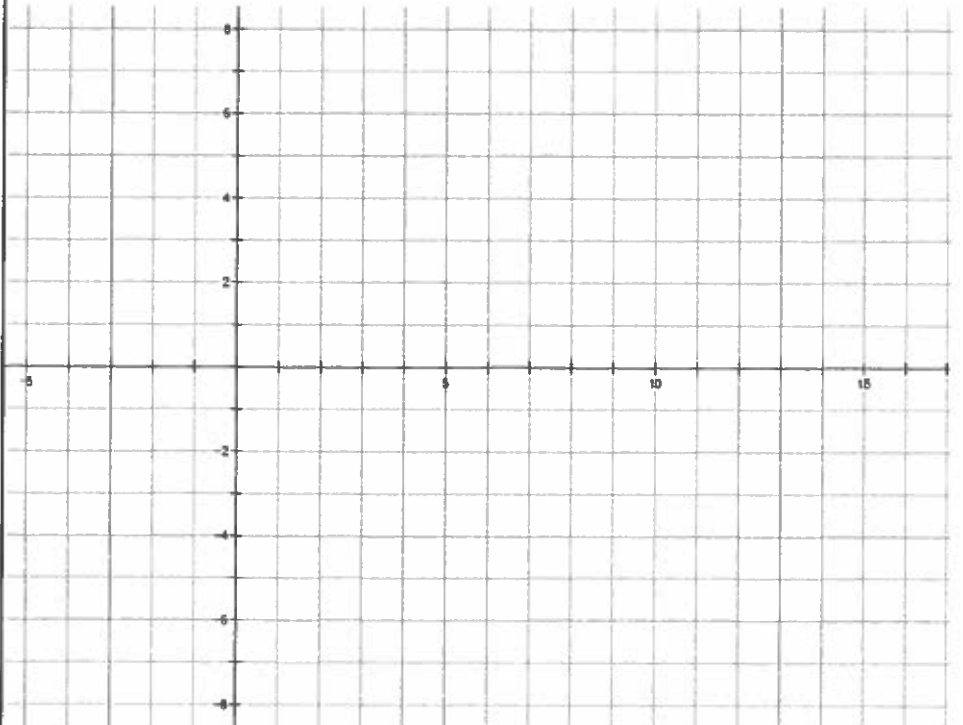
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



5. Write the equation of the line graphed on the right.

Slope = _____

This means _____ up/down

and over _____

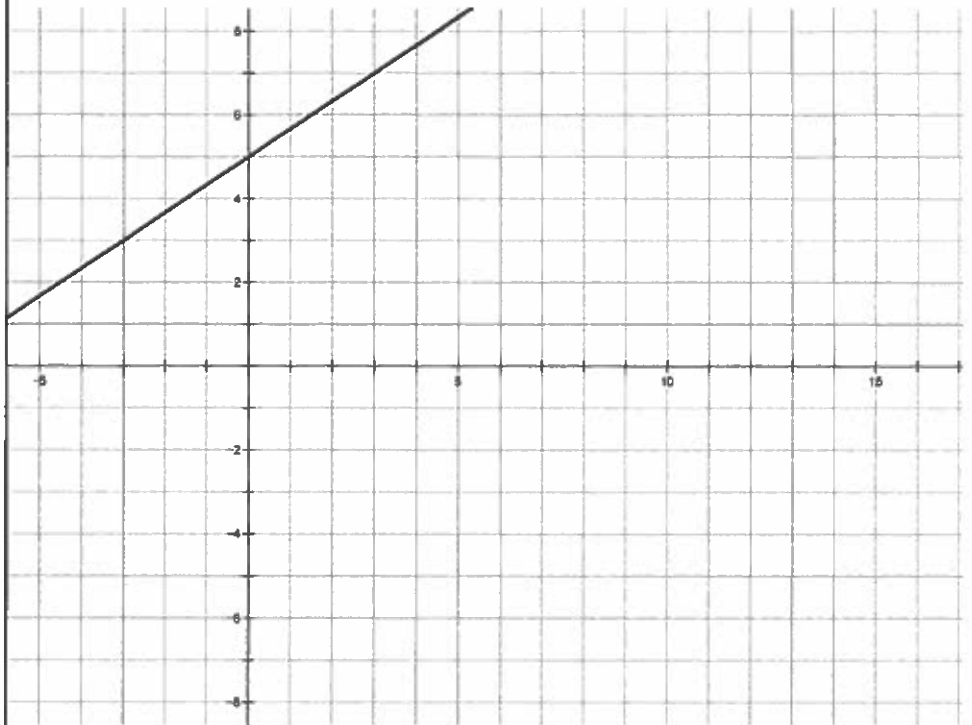
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



6. Write the equation of the line graphed on the left.

Slope = _____

This means _____ up/down

and over _____

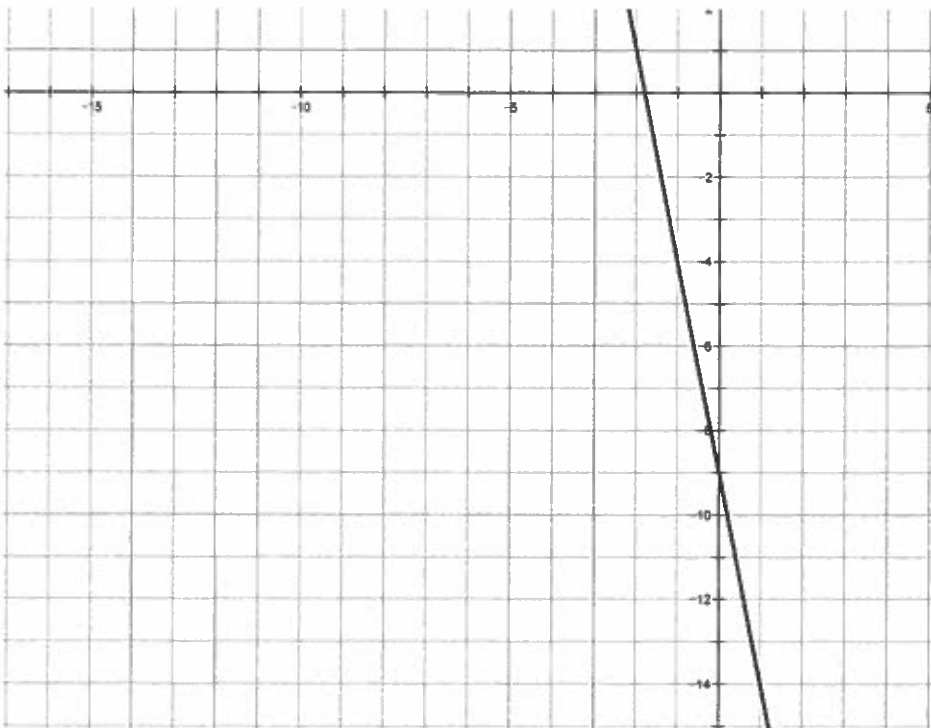
y-intercept = _____

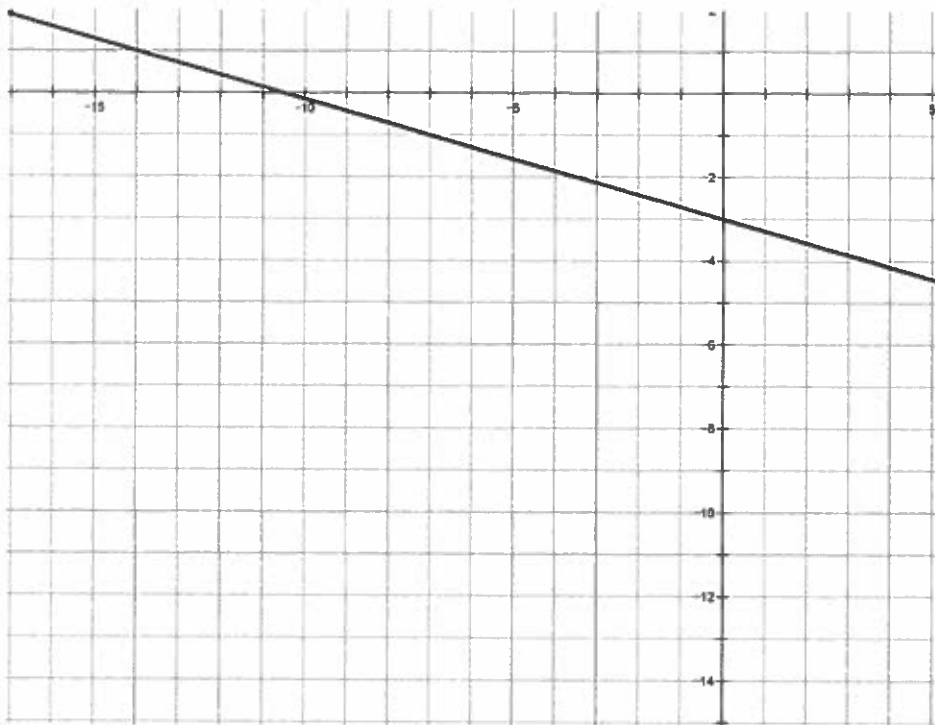
coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)





7. Write the equation of the line graphed on the left.

Slope = _____

This means _____ up /down

and over _____

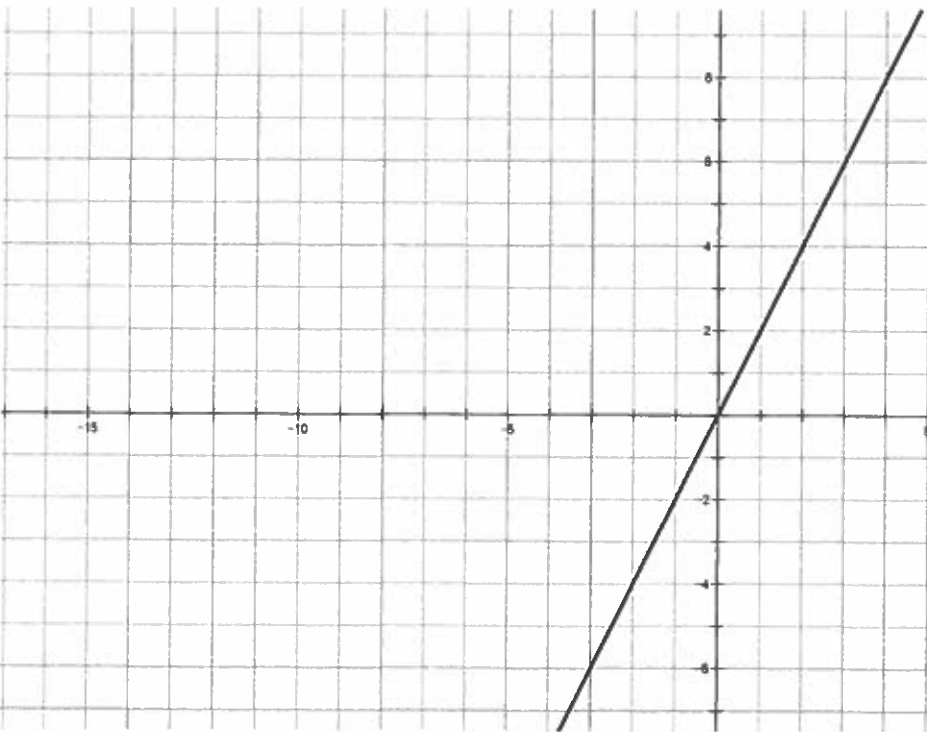
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



8. Write the equation of the line graphed on the left.

Slope = _____

This means _____ up /down

and over _____

y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)

"SPECIAL" LINES

9. $y = x$

Slope = _____

This means _____ up/down

and over _____

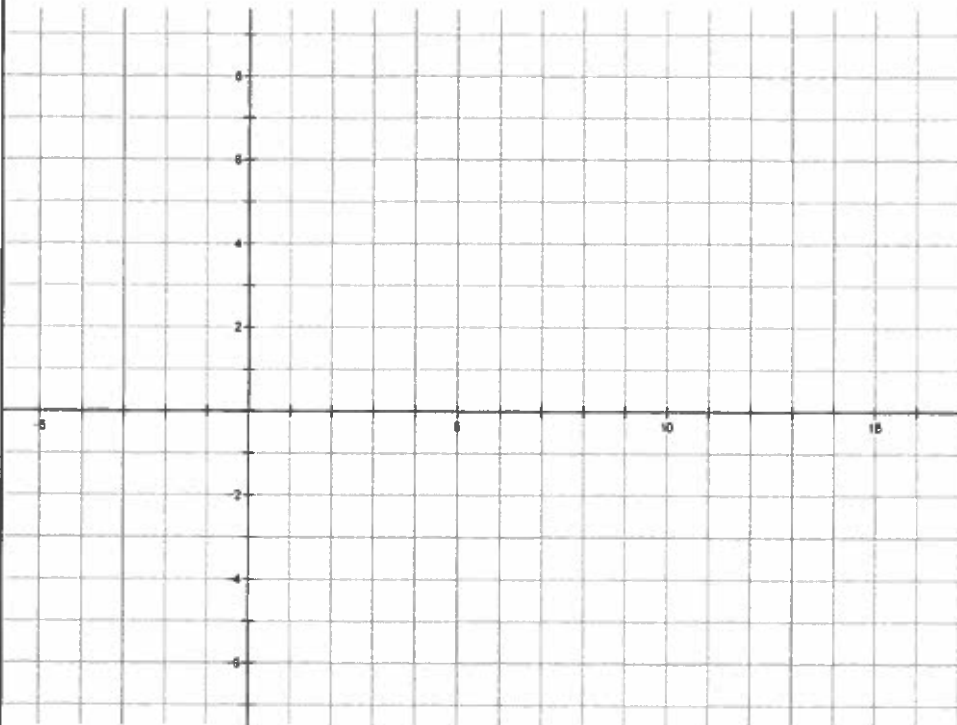
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



10. $y = -x$

Slope = _____

This means _____ up/down

and over _____

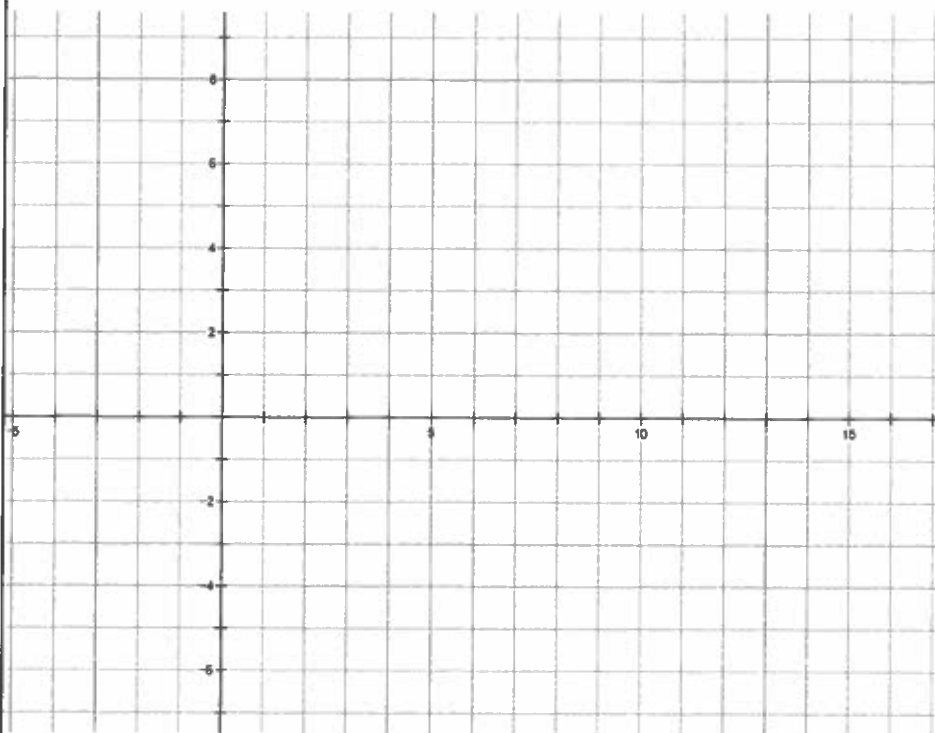
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



11. $y = 4$

Slope = _____

This means _____ up /down

and over _____

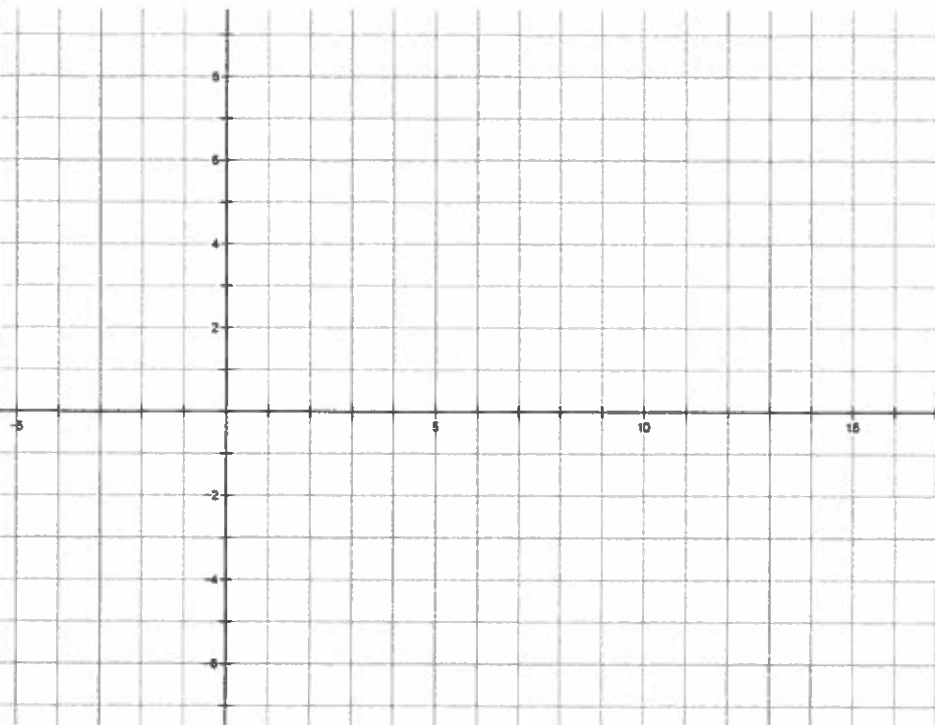
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



12. $y = -6$

Slope = _____

This means _____ up /down

and over _____

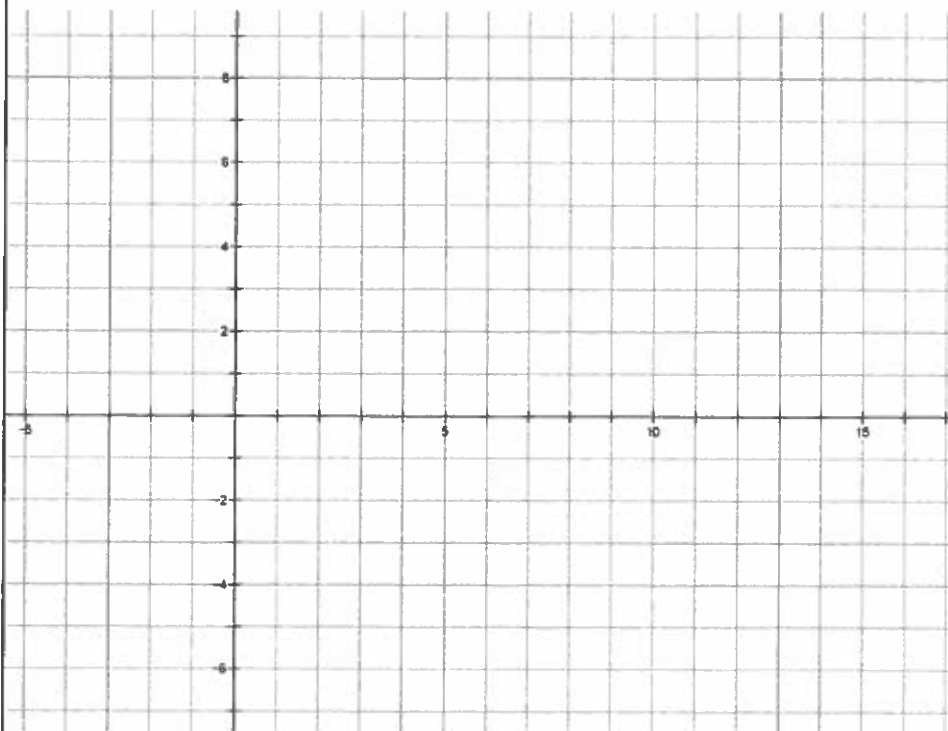
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



13. $x = 6$

Slope = _____

This means _____ up /down

and over _____

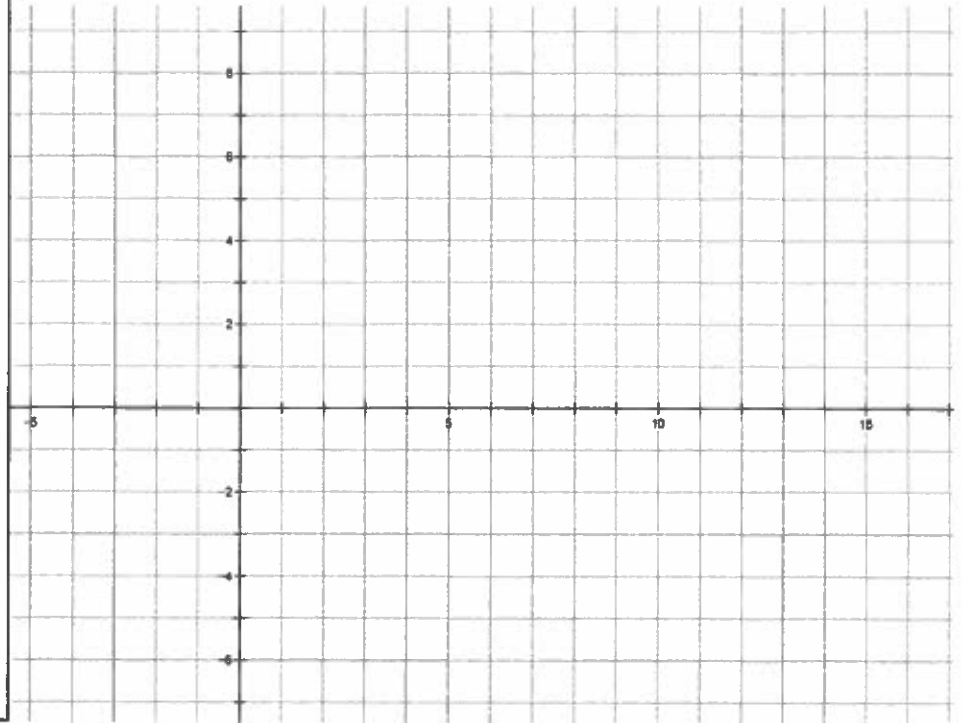
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



14. $x = -2$

Slope = _____

This means _____ up /down

and over _____

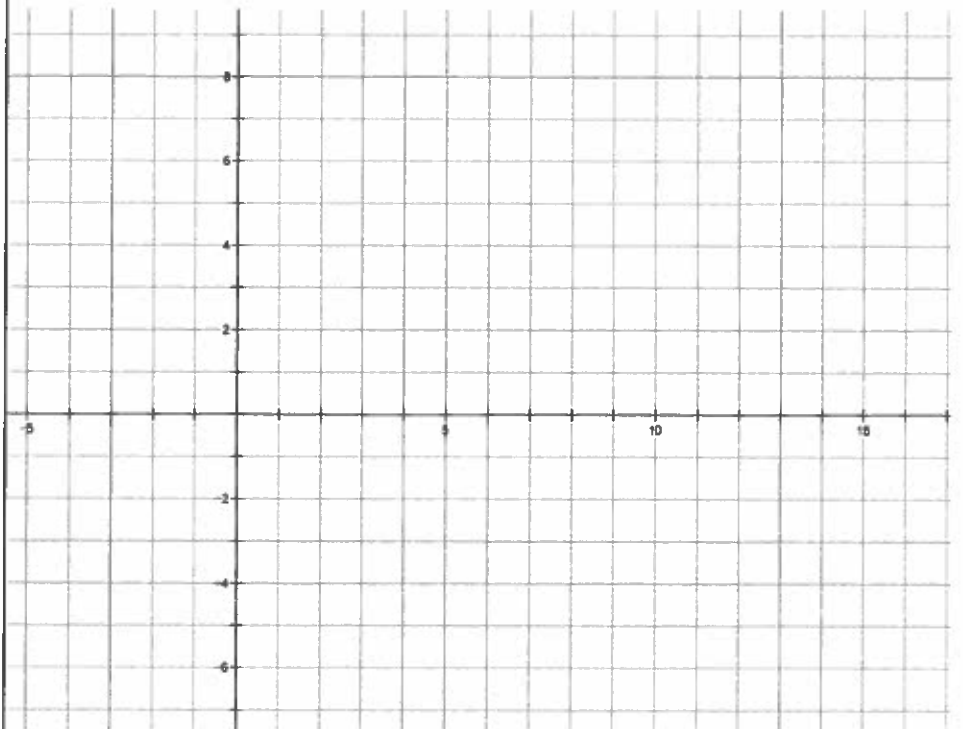
y-intercept = _____

coordinates of the y-intercept (,)

The line is _____

BONUS: coordinates of the x-intercept

(,)



14. Fill-in the blanks without graphing the line:

- a) Every decreasing line has _____ slope.
- b) A line with the equation $y = \frac{3}{5}x$ passes through _____ .
- c) A vertical line is said to have _____ slope and its equation is in the form _____ = _____ .
- d) A horizontal line has _____ slope and its equation is in the form _____ = _____ .
- e) Every horizontal line has only the _____ - intercept.
- f) Every vertical line has only the _____ - intercept.
- g) A line with the equation $y = -\frac{3}{46}x + 5$ goes _____ by _____ over _____ .
- h) Any line whose x-intercept is equal to its y-intercept passes through _____ .

15. Circle the equation that gives a line that is steeper.

a) $y = \frac{12}{4}x + 5$ and $y = -\frac{18}{3}x + 1$

d) $y = \frac{1}{4}x + 3$ and $y = -\frac{1}{3}x$

b) $y = \frac{12}{4}x + 5$ and $y = -\frac{21}{7}x + 1$

e) $y = \frac{3}{4}x + 5$ and $y = -\frac{5}{4}x + 1$

c) $y = x + 7$ and $y = -3x + 1$

f) $y = \frac{8}{9}x + 15$ and $y = -\frac{160}{180}x + 1$

16. Using complete sentences, explain which method of graphing a line is works better for you.