

Name _____

8A; Algebra 1

Date _____

Period _____

How do we graph a line in Slope-Intercept form?

- A number that describes the steepness of a line is called the _____ of the line.
- The _____ is the y-coordinate of the point where a line crosses the y-axis. For example, when a line crosses the y-axis at (0,3), the y-intercept is _____.

Slope-Intercept Form

An equation written in the form _____ is in slope-intercept form.

The graph is a line with slope _____ and y-intercept _____.

Example: In the equation $y = \frac{2}{3}x - 1$, the value _____ is the slope of the line. The value _____ is the y-intercept of the line.

1) Identify the slope and y-intercept of each equation.

(a) $y = -\frac{3}{4}x + 2$

slope = _____
y-intercept = _____

(b) $y = 2x - 3$

slope = _____
y-intercept = _____

(c) $y = x - 4$

slope = _____
y-intercept = _____

(d) $y = \frac{1}{2}x$

slope = _____
y-intercept = _____

(e) $y = -x$

slope = _____
y-intercept = _____

(f) $3x + y = 10$

slope = _____
y-intercept = _____

(g) $4y = 8x + 4$

slope = _____
y-intercept = _____

(h) $4x - 2y = 10$

slope = _____
y-intercept = _____

(i) $7x - y = -4$

slope = _____
y-intercept = _____

2) Create an equation given the slope and y-intercept

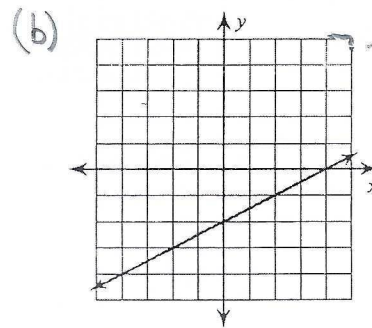
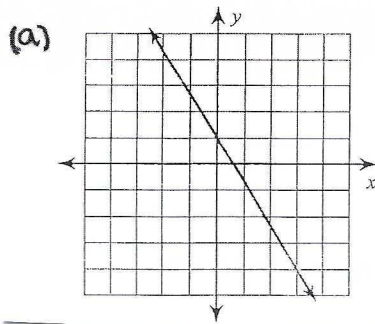
(a) Slope = -6, y-intercept = 5

(b) Slope = $\frac{1}{2}$, y-intercept = -3

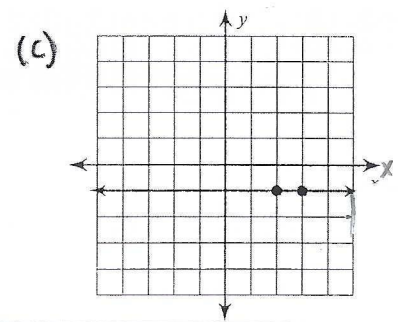
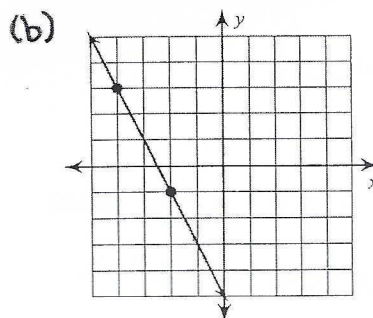
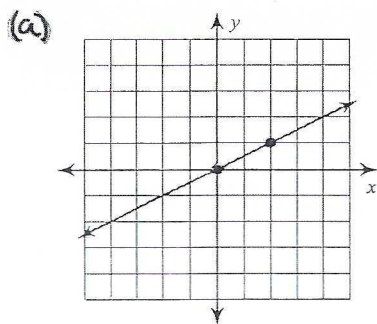
(c) Slope = -4, y-intercept = 0

(d) Slope = 0, y-intercept = 6

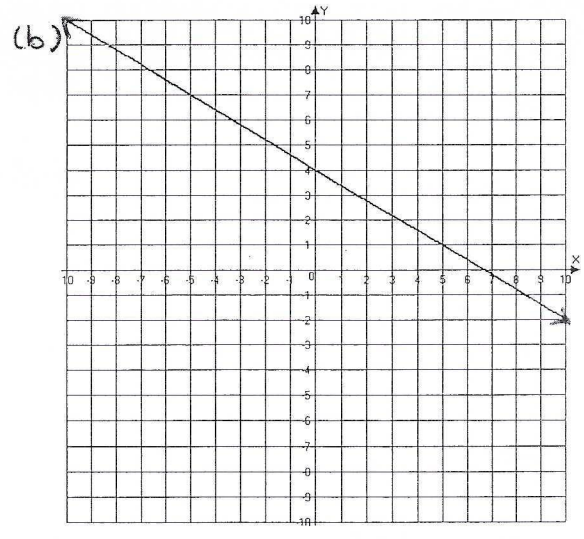
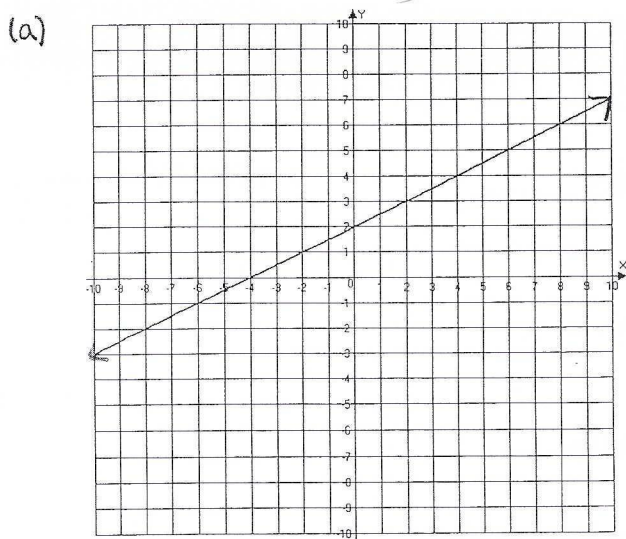
3) Find the y-intercept for each line



4) Find the slope of each line



5) Write the equation of each line.

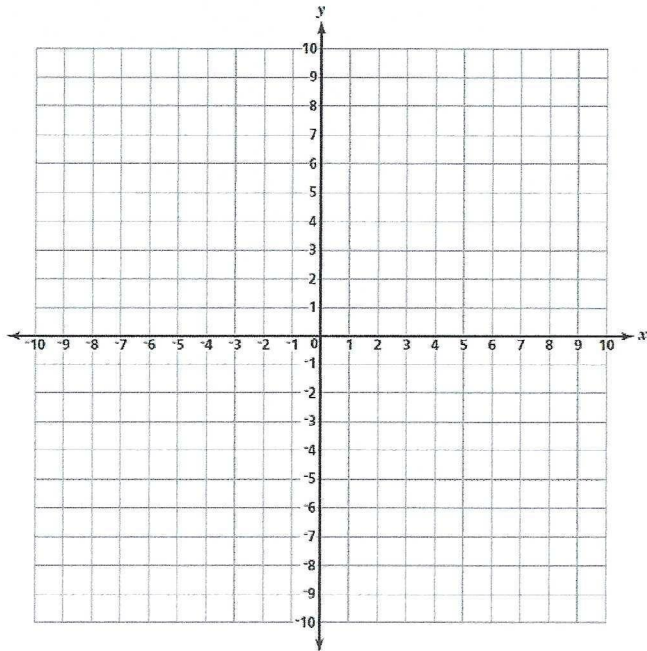


Answer: _____

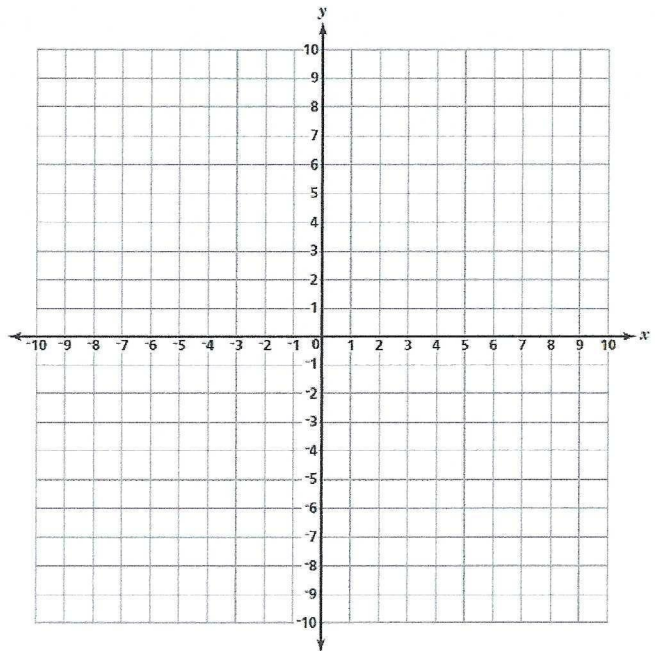
Answer: _____

6) Graph each equation using the slope-intercept method.

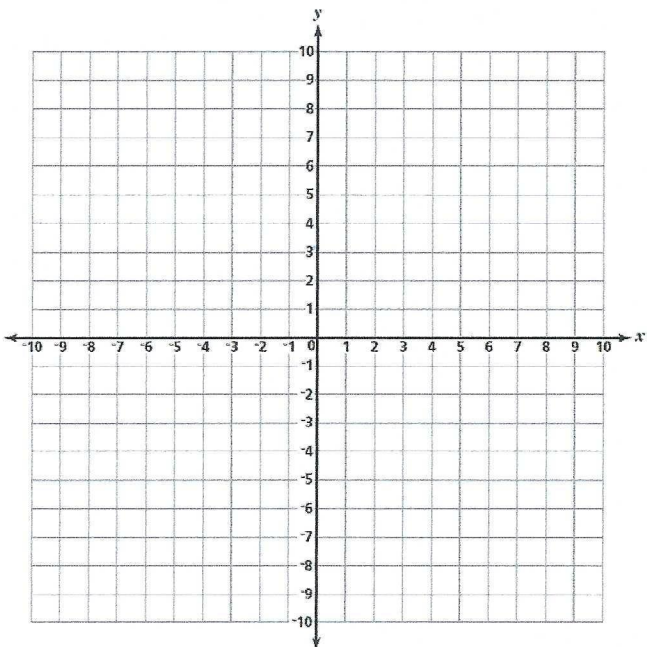
$$(a) y = \frac{1}{2}x - 3$$



$$(b) y = -3x + 4$$



$$(c) 3y = 2x - 12$$



$$(d) y + 2x = -4$$

