Section 8.6 Focus Exercises

1. Write each equation in standard form.

a) $\frac{2}{3}x + y = 5$ b) $-4x + 3y = 12$ c) $y = -2x + 1$

d) $y = 6x - 2$ e) $y = -\frac{5}{3}x - 1$ f) $y = \frac{1}{4}x - 3$

g) $y = -\frac{3}{8}x$ h) $y = x$ i) $y = \frac{5}{2}x - \frac{2}{3}$

2. Write each equation in slope-intercept form. Also, identify the y-intercept point and the slope.

a) $4x + y = 2$ b) $3x - y = 8$ c) $4x - 2y = -10$

d) $x + 3y = -12$ e) $2x - 5y = 15$ f) $3x + 6y = -6$

3. Given each linear equation, identify both the x- and y-intercept points.

a) $4x + y = 8$ b) $2x - y = 6$ c) $3x + 5y = -30$

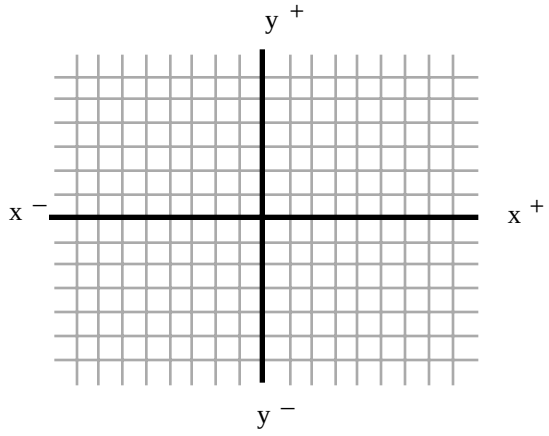
x(,) y(,) x(,) y(,) x(,) y(,)

d) $6x + 2y = 1$ e) $2x - 3y = 9$ f) $x - 4y = 0$

x(,) y(,) x(,) y(,) x(,) y(,)

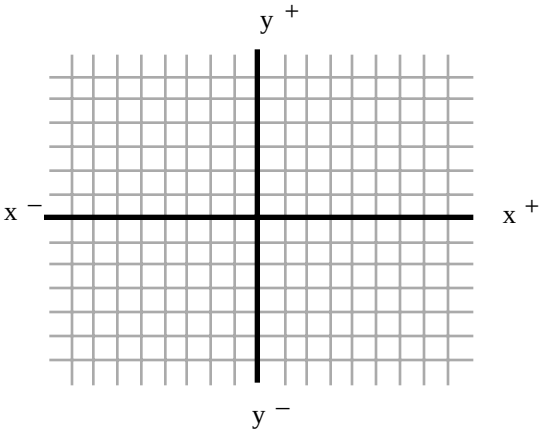
4. Find and plot both the x- and y-intercept points. Identify the slope and draw the line.

a) $x - 2y = 6$



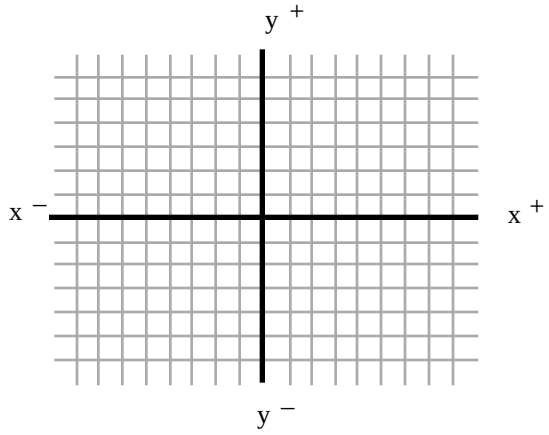
Slope:

b) $4x + y = -4$



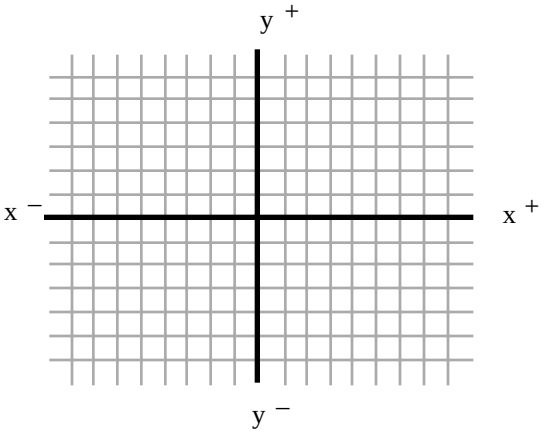
Slope:

c) $3x + 4y = -12$



Slope:

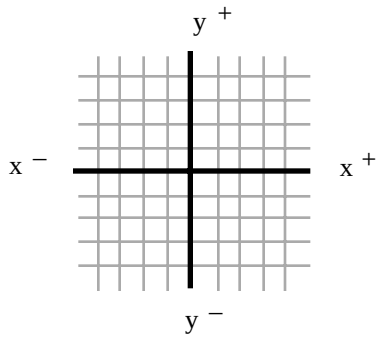
d) $6x - 2y = 12$



Slope:

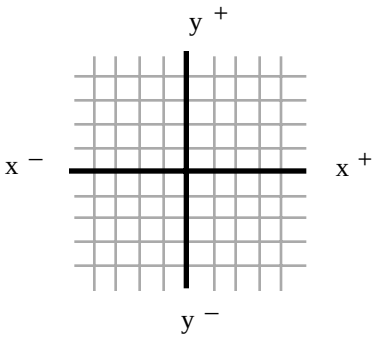
5. Graph each line, and state the slope.

a) $y = -4$



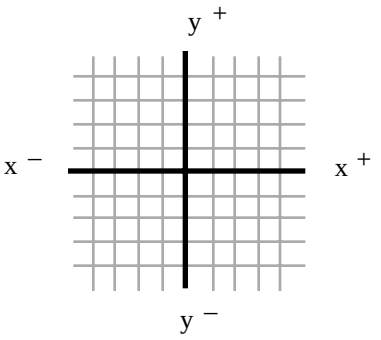
Slope:

b) $x = 3$



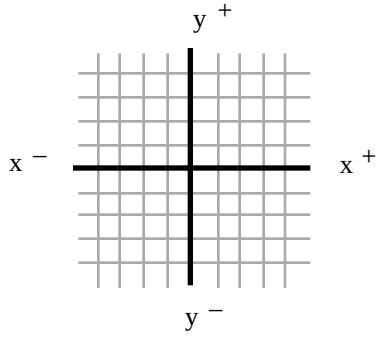
Slope:

c) $y = 1$



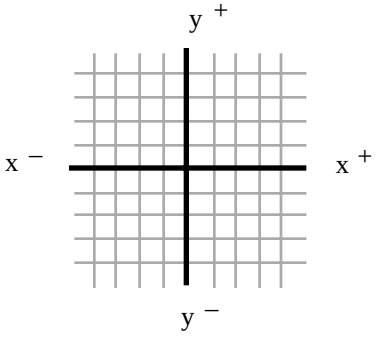
Slope:

d) $x = 2$



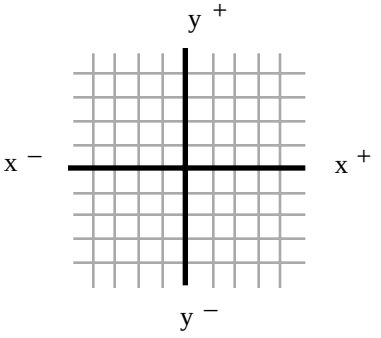
Slope:

e) $y = 3$



Slope:

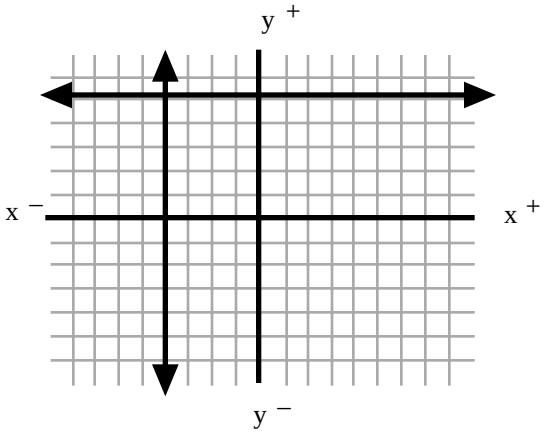
f) $x = -4$



Slope:

6. The graphs of two lines are shown on the same x-y plane. Write the equation of each one.

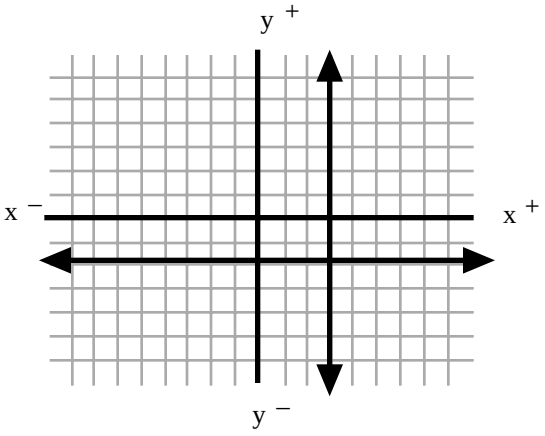
a)



Horizontal line:

Vertical line:

b)



Horizontal line:

Vertical line: