

1. What are the slope and y -intercept of each line?

a) $y = 5x - 3$

b) $y = -x$

c) $y = \frac{x}{3} + 4$

d) $y = -2$

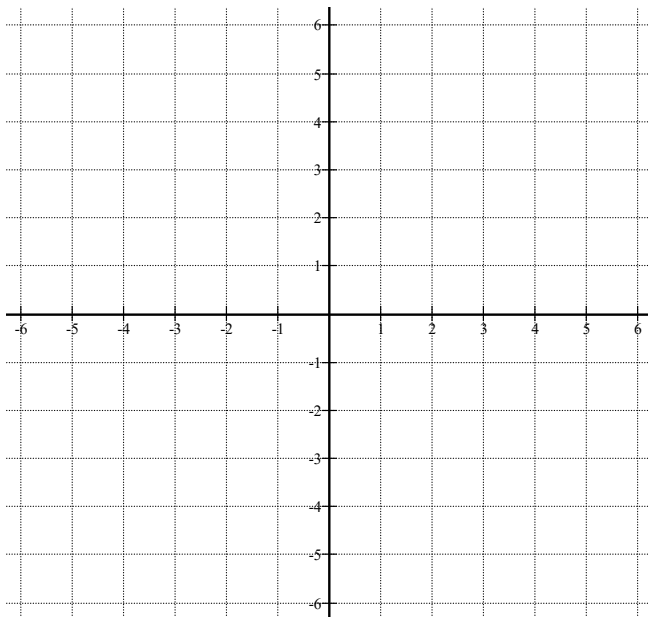
2. Express each equation in slope-intercept form.

a) $4x + 5y - 20 = 0$

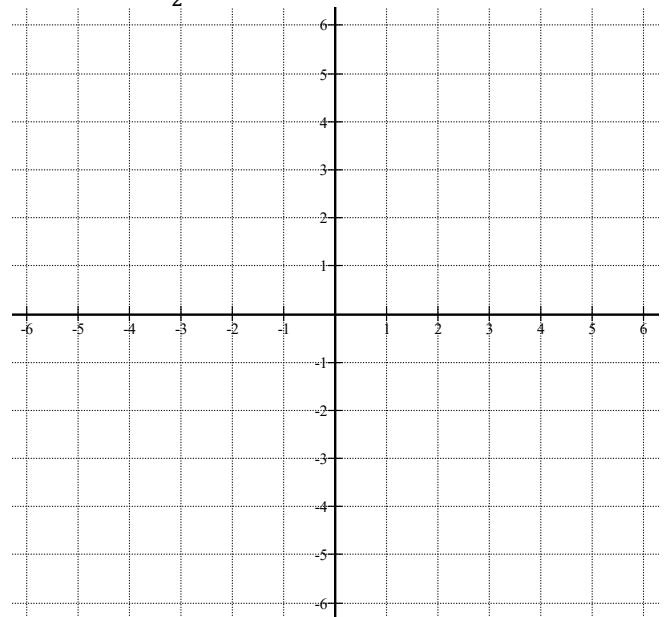
b) $2x - 3y = 6$

3. Sketch the graph of each line using the slope and y -intercept.

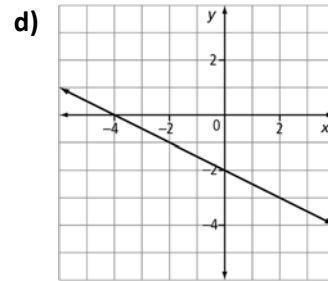
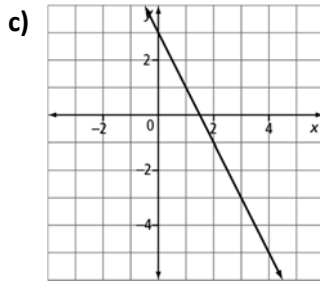
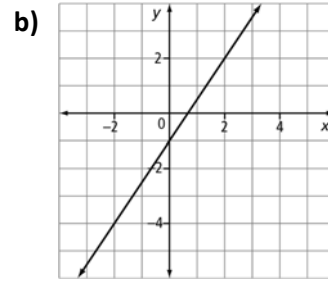
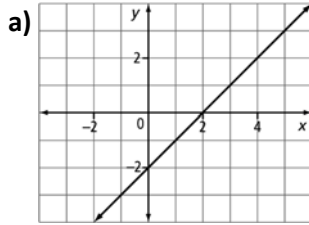
a) $y = -2x + 3$



b) $y = \frac{1}{2}x - 4$



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



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

a) The slope is 2. The line passes through the point (1, 4).

b) The y-intercept is -3 . The line passes through the point $(-2, 6)$.

c) The line passes through the points (0, 4) and (2, 6).

6. Rewrite each linear equation into general form?

a) $y = 5x - 3$

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

7. Write the equation with given information in slope-point form.

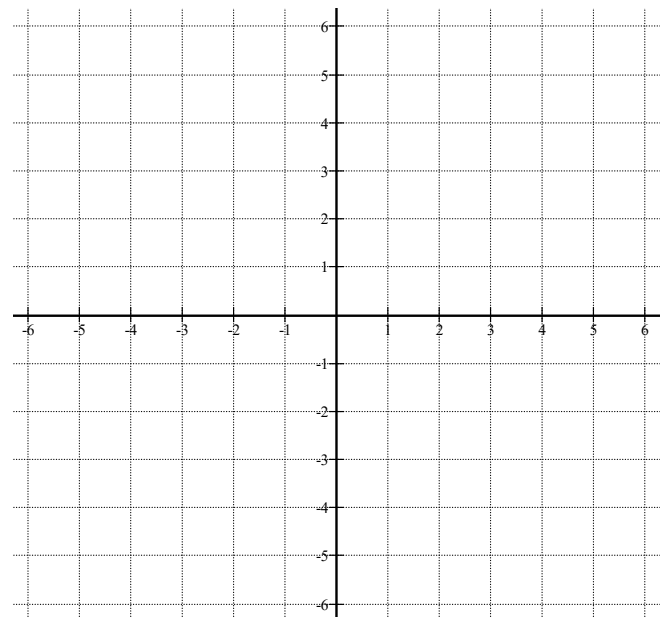
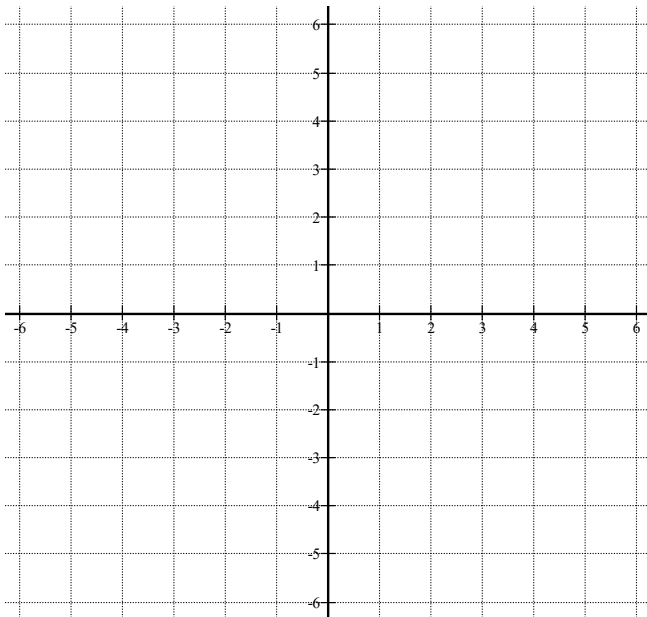
a) $m = -2$; point $(3, 5)$

b) $m = \frac{3}{5}$; point $(1, -2)$

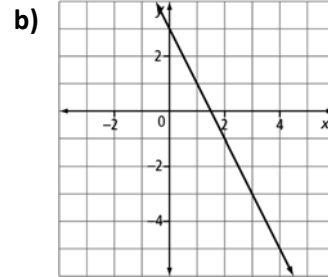
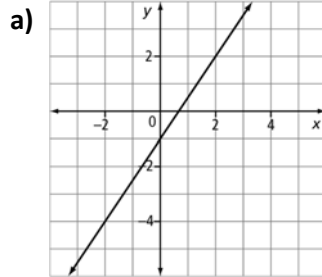
8. Sketch the graph of each line.

a) $y + 3 = 0$

b) $x - 2 = 0$



9. Write the equation of each line in the slope-point form. Then convert to general form.



10. Determine, algebraically, the x-intercept and y-intercept of each line.

a) $3x - 4y = 12$

b) $2x + 5y + 9 = 0$

11. Write an equation, in general form, for each line described.

a) a vertical line passing through the point $(-1, 5)$

b) a horizontal line passing through the point $(-4, 2)$

12. What is the equation of each line in slope-point form?

a) same x -intercept as the line $y = 3x - 4$
and through $(0, 5)$

b) x -intercept of -5 and y -intercept of 4

13. For each given slope of a line state the slope of a line parallel and a line perpendicular:

a) $m = 3$

b) $m = -\frac{5}{4}$

c) $m = 0$

14. Write the equation of each line in general form.

a) Parallel to $y = -2x - 6$ passing
through $(3, -2)$

b) Perpendicular to $3x + 2y - 6 = 0$
with the same y -intercept.

c) Perpendicular to $2x - 3y + 6 = 0$ and with the same x -intercept as $4x + 7y - 20 = 0$.