

Review of Linear Relations

The equation of a line can be _____ or _____.

There are two different ways that you can graph a linear relation:

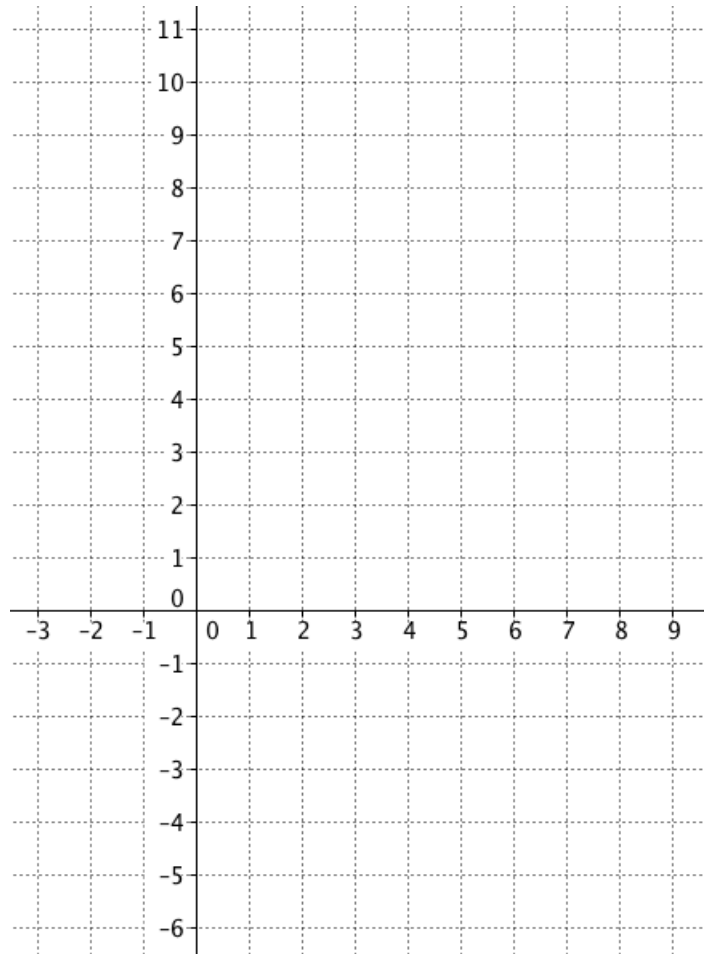
- using the slope and one point on the line (such as the y-intercept)
- using two different points on the line (such as the y-intercept and x-intercept)

1. Using the slope and y-intercept, graph each of the following relations.

a) $y = -2x + 1$

b) $y = \frac{2}{3}x - 4$

c) $4x + 3y - 21 = 0$

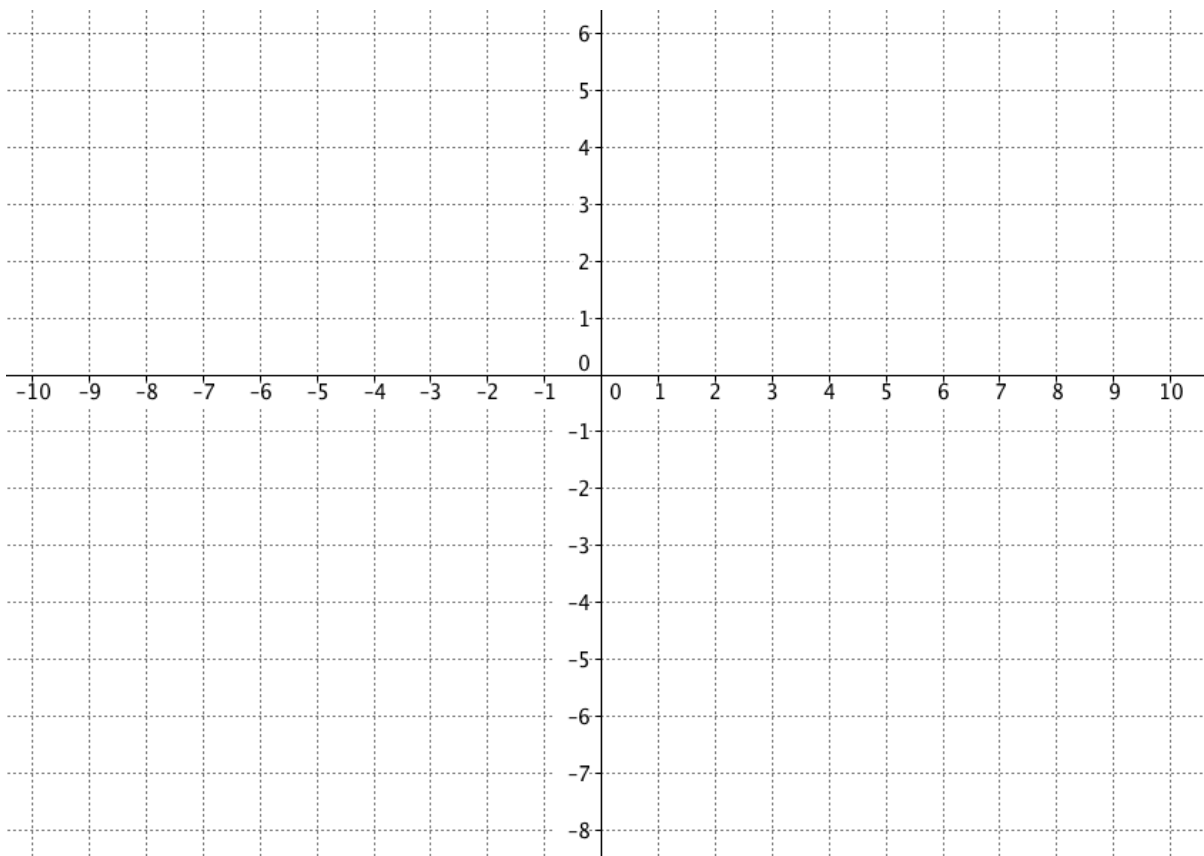


2. Using the x-intercept and y-intercept, graph each of the following relations. Then state the slope of each line.

a) $2x + 4y = 20$

b) $4y - 3x = 12$

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



Some straight lines are not linear relations (there is no dependent variable):

- a horizontal line has a constant y-value
- a vertical line has a constant x-value

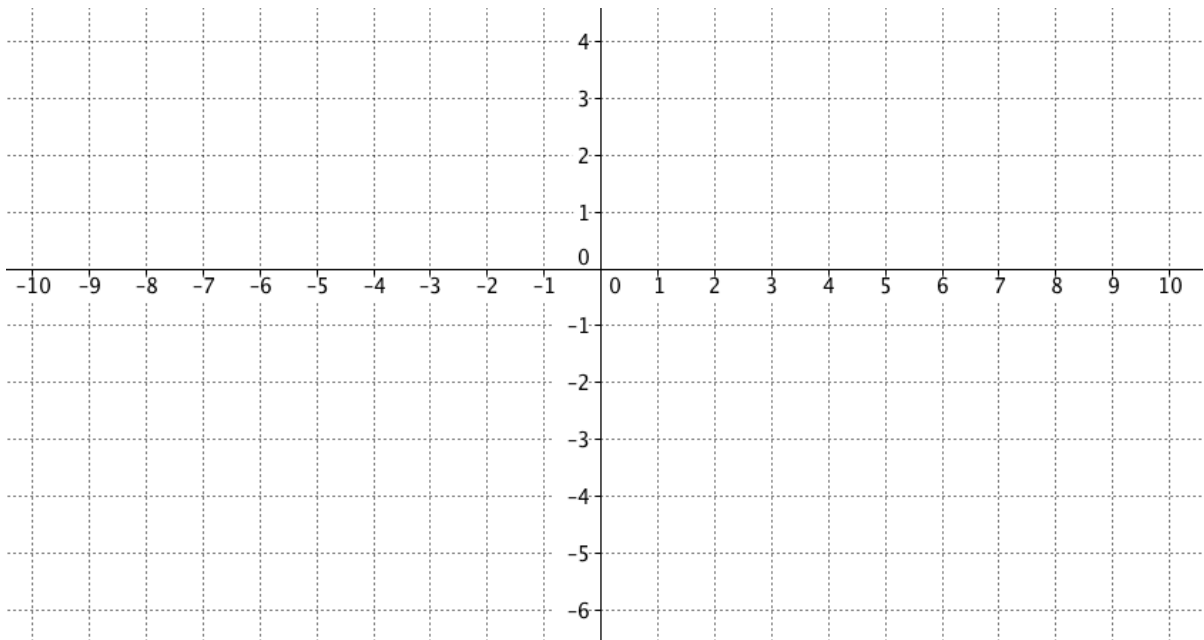
3. Graph each of the following lines. Then state the slope of each line.

a) $x = 6$

b) $y = 1$

c) $x = -8$

d) $y = -5$



Homework – Complete the attached Graphing Linear Relations Worksheet.

Graphing Linear Relations Worksheet

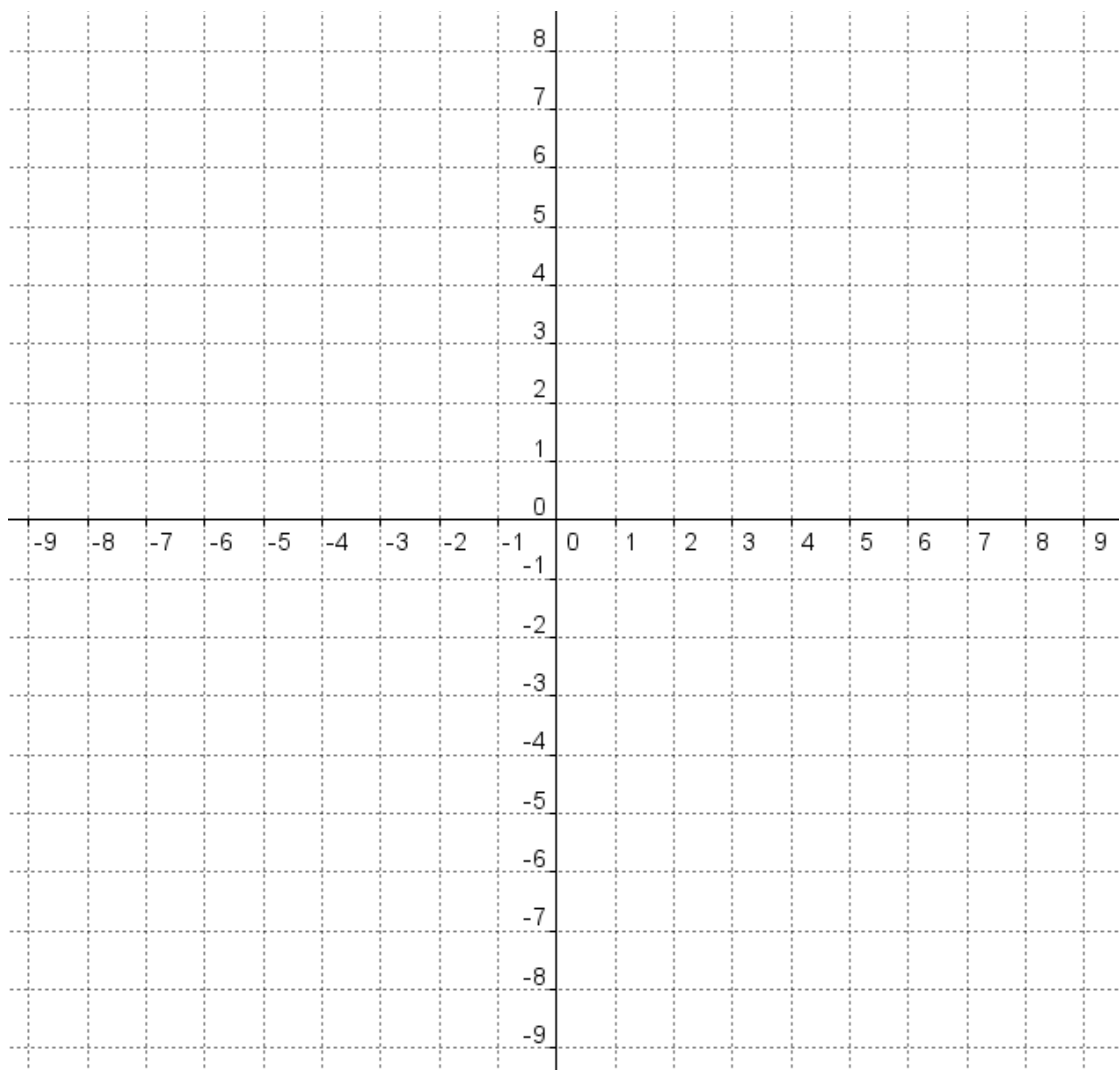
1. Graph each of the following lines using slope and y-intercept.

a) $y = x + 7$

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

c) $y = \frac{5}{7}x$

d) $4x + 2y + 9 = 0$



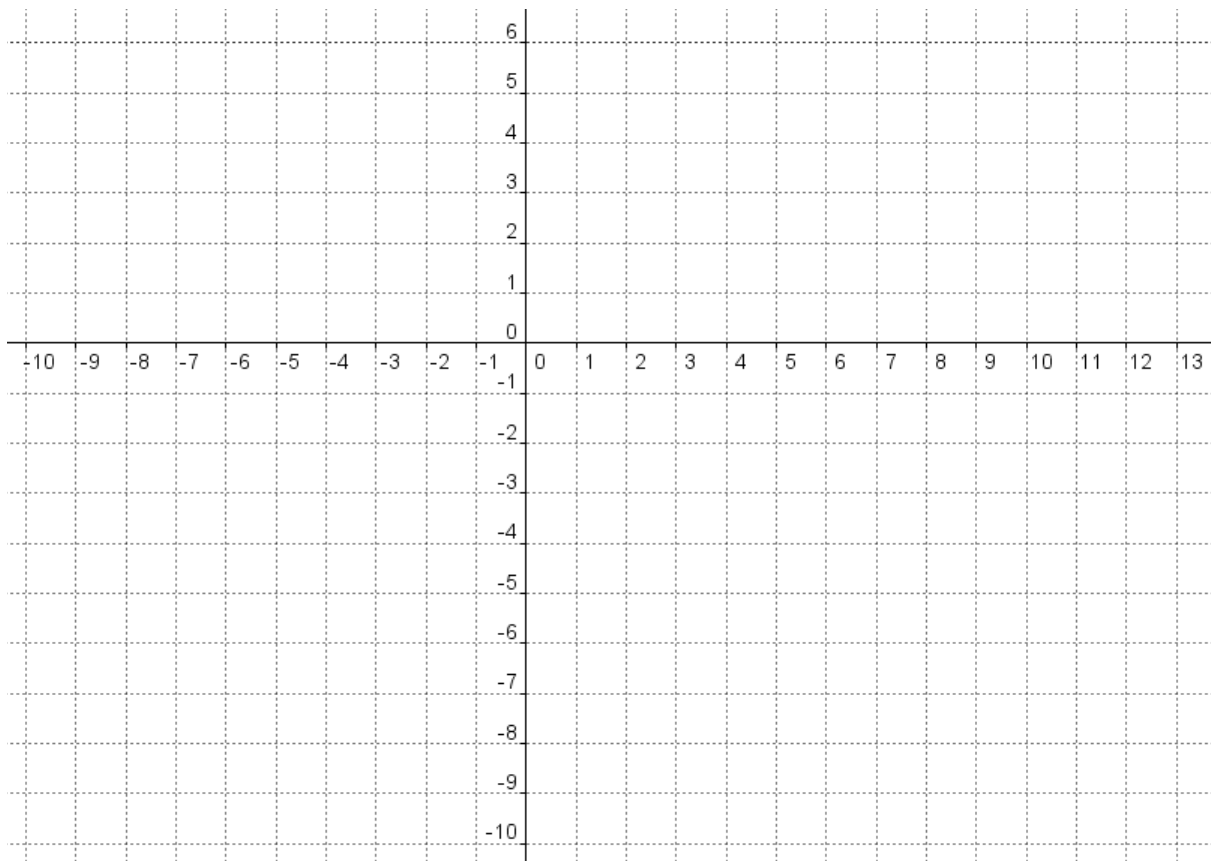
2. Graph each of the following lines using both intercepts.

a) $4x - 3y = 30$

b) $x + 3y = 10$

c) $-3y = 12 - x$

d) $4x + 5y + 20 = 0$



3. Rearrange each equation into slope y-intercept form. Then graph each line and state each slope.

a) $4x + 3y + 9 = 0$

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

c) $\frac{x - 2y}{2} = 6$

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

