More Notes on Linear Equations

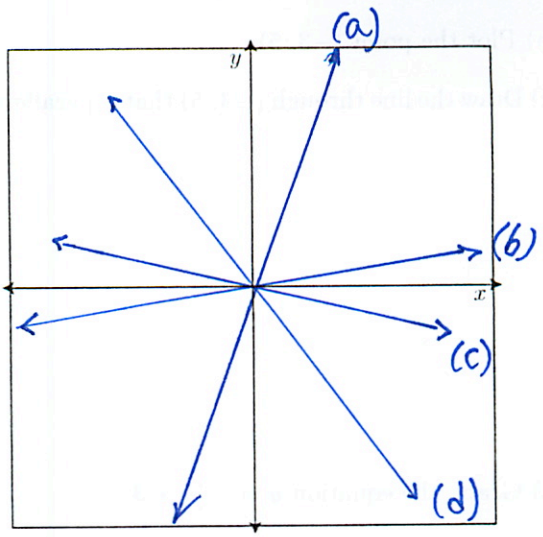
1. Sketch and label lines with the indicated slopes.

(a) m is positive and large.

(b) m is positive and close to zero.

(c) m is negative and close to zero.

(d) $m < -2$

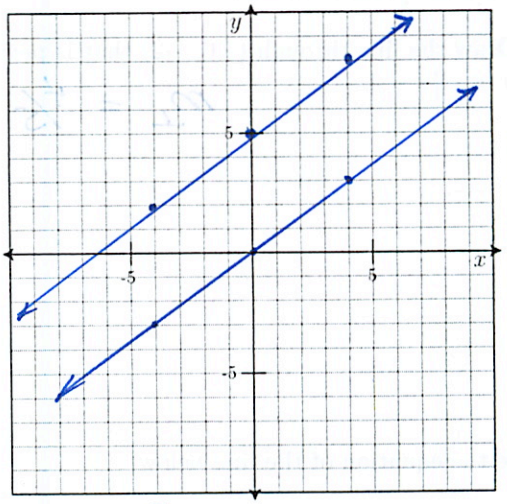


Arrange the lines above (a – d) in order from least slope to greatest slope:

(d) < (c) < (b) < (a)

2. Graph two different lines with slope $\frac{3}{4}$.

e.g.



3. Write the equation of a line parallel to $y = \frac{2}{3}x - 4$.

e.g. $y = \frac{2}{3}x + 1$

4. Make a table for the equation $y = \frac{7}{2}x + 3$.

x	-4	-2	0	2	4
y	-11	-4	3	10	17

5. Find the equation for the table below.

x	−6	−3	0	3	6
y	12	7	2	−3	−8

+3 +3

−5 −5

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

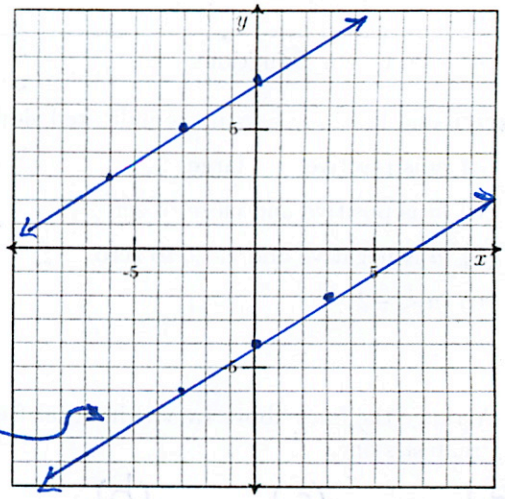
$m = -\frac{5}{3}$

y-Int: (0, 2)

6. (a) Graph the equation $y = \frac{2}{3}x - 4$

(b) Plot the point $(-3, 5)$

(c) Draw the line through $(-3, 5)$ that is parallel to $y = \frac{2}{3}x - 4$.

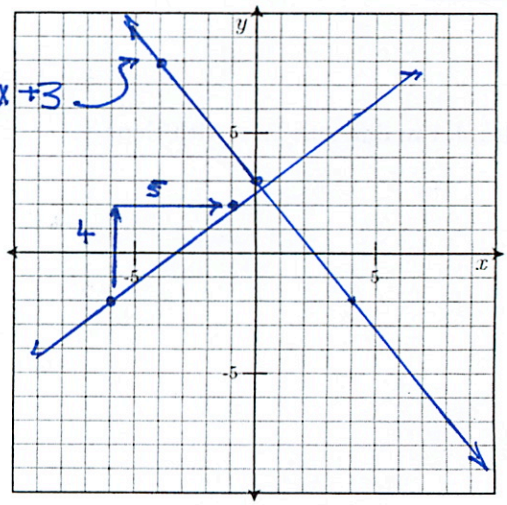


7. (a) Graph the equation $y = -\frac{5}{4}x + 3$

(b) Plot the point $(-6, -2)$

(c) Draw the line through $(-6, -2)$ that is perpendicular to $y = -\frac{5}{4}x + 3$.

$m_\perp = 4/5$



8. Write the equation of the line below.

$y = -5/4\,x + 5$