

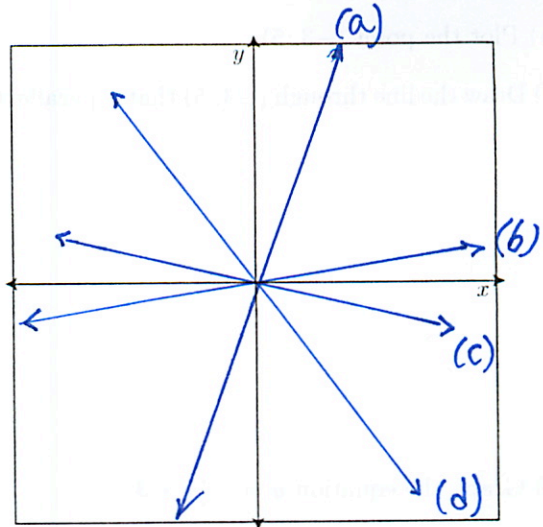
More Notes on Linear Equations

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) $m < -2$

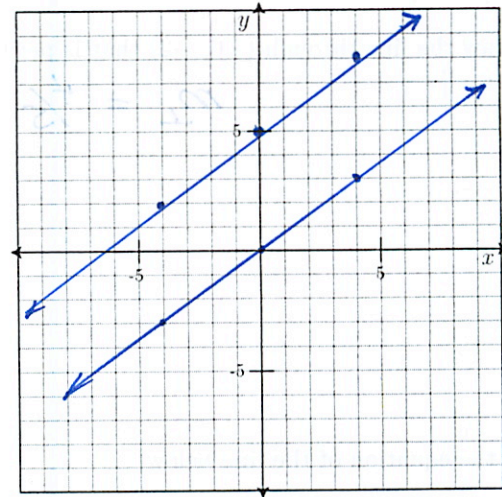
Arrange the lines above (a - d) in order from least slope to greatest slope:

(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.

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

x	-6	-3	0	3	6
y	12	7	2	-3	-8

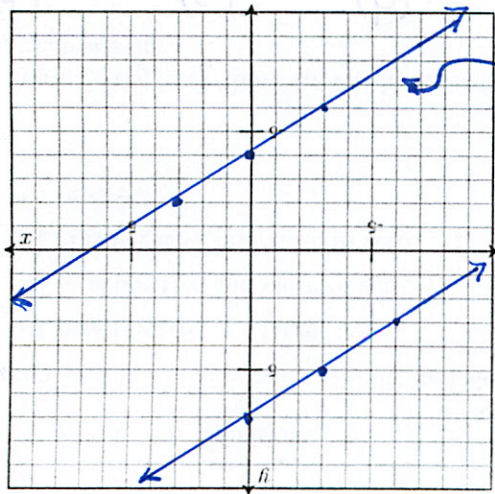
Handwritten calculations for finding the equation of the line from the table above:

- Arrows between x-values (-6 to -3) and (-3 to 0) are labeled "+3".
- Arrows between y-values (12 to 7) and (7 to 2) are labeled "-5".
- The slope is calculated as $m = \frac{-5}{3}$.
- The y-intercept is identified as $y\text{-Int: } (0, 2)$.

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

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

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



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

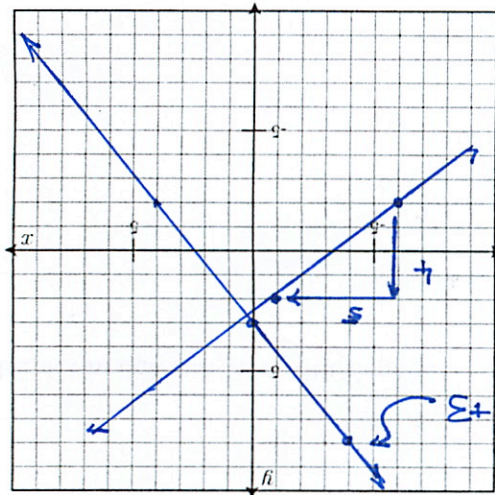
7. (a) Graph the equation $y = -\frac{1}{5}x + 3$

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

(c) Draw the line through $(-6, -2)$ that is perpendicular to

$y = -\frac{1}{5}x + 3$.

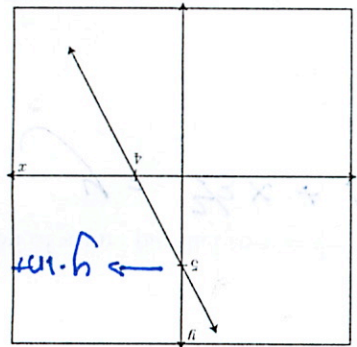
$m_{\perp} = \frac{4}{5}$



$y = -\frac{4}{5}x + 3$

8. Write the equation of the line below.

$y = -\frac{5}{4}x + 5$



$y\text{-int} \rightarrow (0, 5)$

$\frac{4}{5} = m$