MFM2PI Unit 2: Linear Relations **Day 5: Graphing y = mx + b**

Two classes ago we used Desmos to graph lines. We looked at how the steepness (slope) of the line changed and where the line crossed the *y*-axis (*y*-intercept).

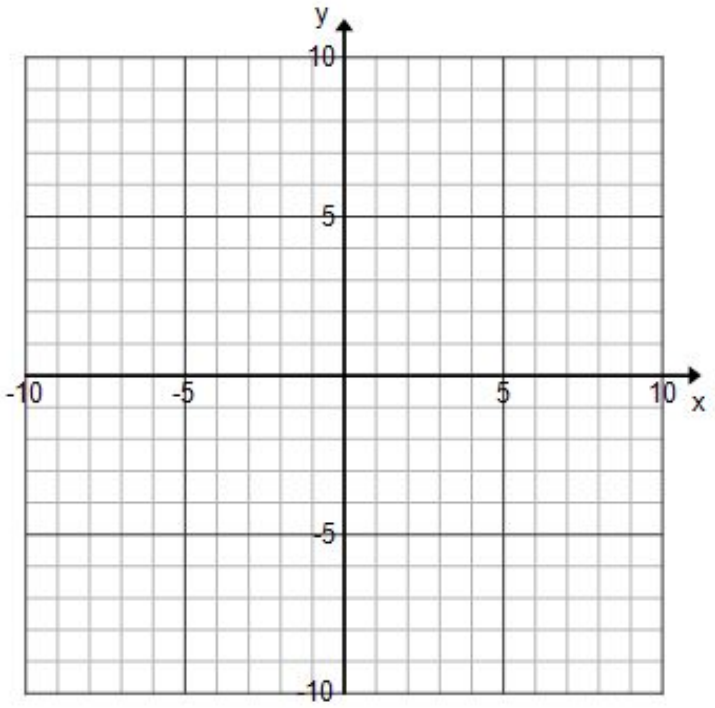
$$y = \boldsymbol{m}x + \boldsymbol{b}$$

Today, we will graph equations by hand!

Example 1: Graph the following equations on the grids provided.

a) $y = \frac{2}{3}x - 5$ y = intercept (b) :

rise = run = slope (m) =



Step 1 :

Step 2 :

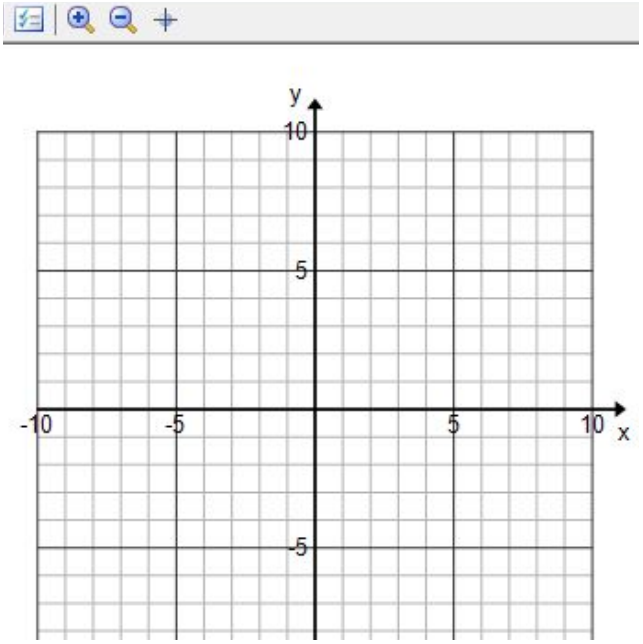
Step 3 :

b) $y = -\frac{1}{4}x + 8$

y = intercept (b) :

rise = run =

slope (m) =



c) $y = 3x$

y = intercept (b) :

rise = run =

slope (m) =

d) $y = 7$

y = intercept (b) :

rise = run =

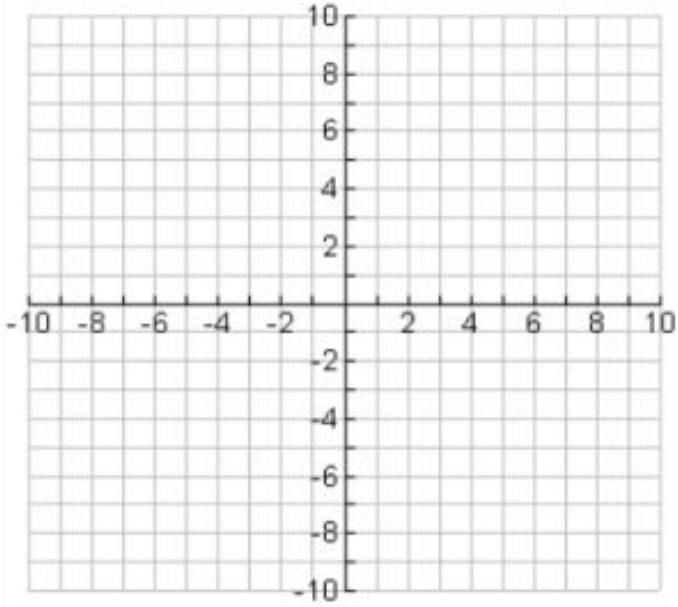
slope (m) =

Definition (in own words)

Rules/Method:

Graphing by Hand Using the Slope and Y- Intercept

Examples



Non-examples

Homework: Pg. 143 #1, 3