Mission #1: Graphing Linear Equations

Objective: By the end of this mission, you will be able to graph a line written in slope-intercept form (y=mx + b OR f(x) = mx+b)

Instructions: (Team member closest to the <u>courtyard</u> door please read the instructions OUT LOUD)

1. **EVERY team member** must **write their name and complete** the **six practice problems** on the worksheet (use the step-by-step guide below)
2. Once done, please **use the Answer Key** included in the "Top Secret" folder of your packet to **check your work**.
3. When all members have complete understanding of this objective, **place ALL completed worksheets and turn it in to the teacher**

Step-By-Step Guide (Graphing lines in slope-int form)

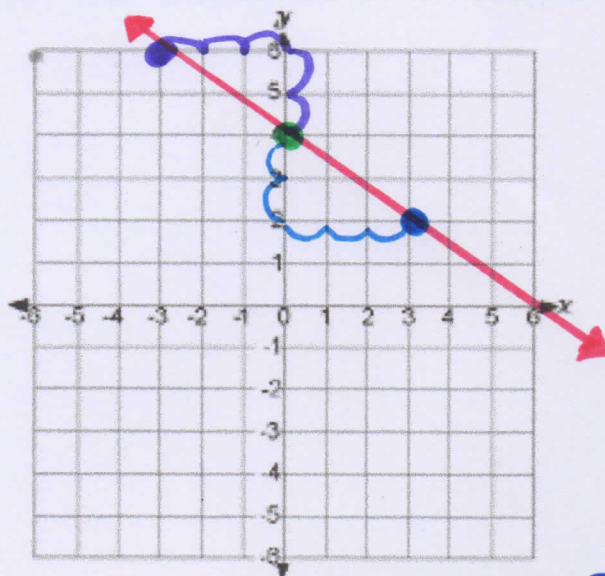| Example: Graph $y = -\frac{2}{3}x + 4$ |
| --- |

Step 1: Identify the slope and y-intercept in your symbolic function	$y = -\boxed{\dfrac{2}{3}}x\,\boxed{+\,4}$ Slope (m) y-int (b)
Step 2: Plot the y-intercept	
Step 3: Starting from the y-intercept, use the slope to find the next point	
Step 4: Connect your y-intercept & new point with a straight line. Be sure to include arrows at the ends of your line	Step 3: Slope $-\frac{2}{3} = \frac{-2}{3}$ OR $\frac{2}{-3}$ $\dfrac{\text{Down 2}}{\text{Right 3}}$ $\dfrac{\text{UP 2}}{\text{left 3}}$