Graph Plotting Using m and b

Date: _____

Steps:

1. Fill the "b" and "m" columns with the correct values from each equation.
2. From the values in the "Slope" column, find values for the **run** and **rise** of each line and thus complete the table below.
3. On the graph paper supplied, start by placing a point on the *y*-axis at the location specified by the *y*-intercept.
4. From this point, first draw the run. Remember that the run is always drawn **towards the right**.
5. From the end of the run, draw the rise upwards if it is positive and downwards if it is negative.
6. Draw the line from edge to edge on the graph through the two points you have just found.
7. Beneath each of the graphs, neatly print the equation of the line.

#	Relation	b (y-intercept)	m (slope)	RUN Always do first. Always "+"	RISE "+" ⟹ up "−" ⟹ down
1	$y = \frac{2}{3}x + 1$				
2	$y = \frac{3}{4}x$				
3	$y = \frac{5}{2}x - 2$				
4	$y = -\frac{2}{5}x + 4$				
5	$y = -\frac{1}{5}x$				
6	$y = x - 3$				
7	$y = \frac{x}{2} + 1$				
8	$y = 2x + 3$				
9	$y = -4x$				
10	$y = -3x + 5$				
11	$y = -x$				
12	$y = 3$				

TO CHECK ANSWERS: If drawn correctly, your line will also pass through the point indicated below.

1. (3,3)   2. (4,3)   3. (−2,−7)   4. (−5,6)   5. (−5,1)   6. (3,0)
7. (6,4)   8. (−3,−3)   9. (−2,8)   10. (3,−4)   11. (−4,4)   12. (6,3)