

1. Plot the point $\left(-1, \frac{3}{2}\right)$

2. $x = -1$

a. Sketch the line

b. What quadrants is this line in?

3. $y = -3x + 1$

a. Create a table of values

b. Sketch the graph

4. Given $y = mx + b$ what is the meaning of:

a. m ?

b. b ?

5. Sketch $y = 5 + 2x$

6. Sketch $y = \frac{2}{-3}x + 3$

7. Given the points $(1,1)$ and $(3,-3)$
- Find the slope
 - Find the line equation in slope-point form: $y - y_1 = m(x - x_1)$
 - Find the line equation in slope-intercept form: $y = mx + b$
8. Given the points $(-\frac{8}{3}, 1\frac{1}{2})$ and $(2\frac{2}{3}, -1)$ find the slope
9. You make \$150 per hour as a solid-state battery technician. You charge \$100 for an initial diagnosis fee.
- What is the equation of your Money-time graph?
 - Sketch this graph
 - How much do you make for working 4 hours?
 - How long do you have to work to earn \$1000?

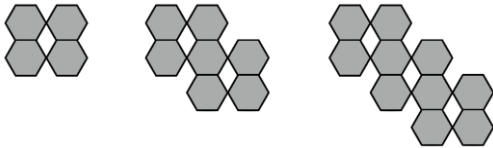
10. Your car burns 6L per 100 km and has a full tank of gas of 60L.

a. Write the equation of the Volume distance graph.

b. How much fuel do you have left in the tank after driving 300 km?

c. When do you run out of gas?

11. See figures 1, 2, and 3 below:



a. How many hexagons are in figure 1000?

b. What figure number contains 121 hexagons?

12. $-10, -5, 0, 5, 10, 15, \dots$ Find the 50th number.