

Equation of a Line in General Form

$$Ax + By + C = 0 \text{ or } Ax + By = C$$

*A line is in general form when x and y are on the same side.

Graph the following:

a) $x + y = 4$

Very easy! Make a table of values and find the x & y intercepts

x	y
0	4
4	0

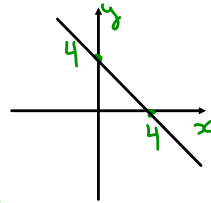
① $x=0, y=?$

$$0 + y = 4$$

$$y = 4$$

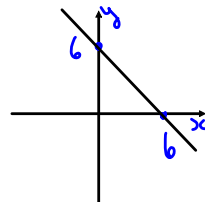
② $y=0, x=?$

$$x + 0 = 4 \Rightarrow x = 4$$



b) $x + y - 6 = 0$ $x + y = 6$

x	y
0	6
6	0



c) $2x + y = 6$

x	y
0	6
3	0

① $x=0, y=?$

$$2(0) + y = 6$$

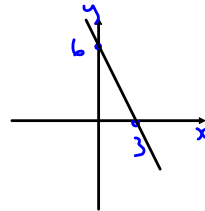
$$y = 6$$

② $y=0, x=?$

$$2x + 0 = 6$$

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3$$



d) $3x - 4y = 12$

x	y
0	-3
4	0

① $x=0, y=?$

$$3(0) - 4y = 12$$

$$\frac{-4y}{-4} = \frac{12}{-4}$$

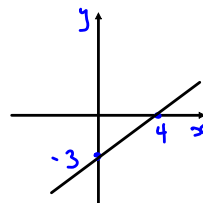
$$y = -3$$

② $y=0, x=?$

$$3x - 4(0) = 12$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$



Graph:

1) $2x + 3y = 6$

2) $2x - 5y - 10 = 0$

3) $4x + 2y + 8 = 0$

4) $5x - 3y - 15 = 0$

5) $x + 2y = 6$

6) $3x - y - 9 = 0$