

## Equation of a Line in General Form

$$ax + by + c = 0$$

\*Where  $a$  is a positive whole number

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

$$\text{Slope: } -\frac{a}{b} \quad \text{y-int: } -\frac{c}{b} \quad \text{x-int: } -\frac{c}{a}$$

Write the following lines in general form:

1)  $y = -\frac{1}{2}x + 3$

$$\frac{1}{2}x + y - 3 = 0$$

$$x + 2y - 6 = 0$$

2)  $y = \left(\frac{2x-4}{3}\right) + 4$

$$3y = 2x - 4 + 12$$

$$0 = 2x - 3y + 8$$

$$\underline{2x - 3y + 8 = 0}$$

3)  $4(x-1) + 2(y-2) = 0$

$$4x - 4 + 2y - 4 = 0$$

$$4x + 2y - 8 = 0$$

4)  $\left(\frac{x}{3}\right) + \left(\frac{y}{4}\right) = 1$

$$4x + 3y = 12$$

$$4x + 3y - 12 = 0$$