

**FINDING EQUATIONS OF LINES – GIVEN TWO POINTS**

**METHOD 5** (Given two points on a line  $(x_1, y_1)$  and  $(x_2, y_2)$ , without graphing)

Calculate slope using  $m = \frac{y_2 - y_1}{x_2 - x_1}$ .

Calculate y-intercept using the slope and one of the points given.

Substitute all values into  $y = mx + b$  and solve to get b.

Rewrite the equation using values for **m** and **b** only.

} Same as  
method 4

**Ex 8:** Find the equation of the line passing through points  $(-3, -5)$  and  $(-1, 3)$

**Ex 9:** Find the equation of the line passing through points  $(1, 4)$  and  $(2, 2)$