

$$1. \quad y = 9x - 7$$

$$\text{Put } x=1, y=2$$

$$\text{LHS} = 2 \quad \Bigg| \quad \text{RHS} = 9 \times 1 - 7 \\ = 9 - 7 \\ = 2$$

$$\therefore \text{LHS} = \text{RHS}$$

A(1, 2) lies on graph
of $y = 9x - 7$

$$\text{Put } x=-1, y=-16$$

$$\text{LHS} = -16 \quad \Bigg| \quad \text{RHS} = 9(-1) - 7 \\ = -9 - 7 \\ = -16$$

$$\therefore \text{LHS} = \text{RHS}$$

B(-1, -16) lies
on the graph of
 $y = 9x - 7$

$$\text{Put } x=0, y=-7$$

$$\text{LHS} = -7 \quad \Bigg| \quad \text{RHS} = 9 \times 0 - 7 \\ = -7$$

$$\therefore \text{LHS} = \text{RHS}$$

\therefore C(0, -7) lies on the
graph of $y = 9x - 7$

$$2. \quad m = \frac{y_2 - y_1}{x_2 - x_1} \\ = \frac{6 + 2}{-6 - 6} \\ = \frac{8}{-12} \\ = -\frac{2}{3}$$

$$y = mx + c$$

$$y = -\frac{2}{3}x + c \quad \dots \textcircled{1}$$

$$\text{Put } x=6, y=-2$$

$$-2 = -\frac{2}{3} \times 6 + c$$

$$\Rightarrow -2 = -4 + c$$

$$\Rightarrow c = -2 + 4 \\ = 2$$

Sub in $\textcircled{1}$

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

$$(x3) \quad 3y = -2x + 6$$

$$\Rightarrow 2x + 3y - 6 = 0$$

It cuts x-axis at (3, 0)

It cuts y-axis at (0, 2)