

1. Solve the following IVP :

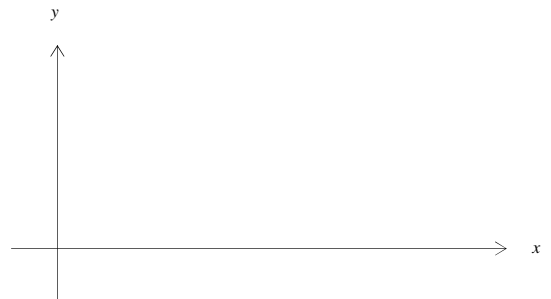
$$\frac{dy}{dx} + 2(1 - y) = 0 \quad x \in (0, \infty)$$

$$y(0) = 2$$

(Hint : use change of variable $u = y - 1$)

Solution :

Sketch the graph :



2. Solve the following BVP :

$$\frac{d^2 y}{dx^2} - 9y = 0 \quad x \in (0, 2)$$

$$y'(0) = 3$$

(Hint : choose the convenient form of solution)

$$y(2) = 0$$

Solution :

Sketch the graph :

