1. Solve the following IVP:
   \[
   \frac{dy}{dx} + 2(1 - y) = 0 \quad x \in (0, \infty) \quad y(0) = 2 \quad (\text{Hint: use change of variable } u = y - 1)
   \]

   Solution:

   Sketch the graph:

   ![Graph](image1.png)

2. Solve the following BVP:
   \[
   \frac{d^2 y}{dx^2} - 9y = 0 \quad x \in (0, 2) \quad y'(0) = 3 \quad y(2) = 0
   \]

   Solution:

   Sketch the graph:

   ![Graph](image2.png)