HOMEWORK 1-PART B

1. (a) Draw Direction field of $dx + \frac{x}{y}dy = 0$. (Pick one method you like.)
(b)Sketch the integral curve from the direction field draw in (a).
(c) Solve this ODE.
(d) Draw the graph of solutions in (c) and compare with (b).

2. Solve the initial value problem $y' + \sin t\ e^y = 0,\ y(1) = 0.$

3. Solve the initial value problem $y' = \frac{e^y}{x+1},\ y(1) = 0.$