1. Using linear superposition principles, or by inspection, solve the IVP \( \frac{dy}{dt} + 2y = 4, \quad y(0) = 1 \)

2. Use Euler-Lagrange or Integrating Factor to find \( y(t) \) that solves: \( \frac{dy}{dt} + y = \frac{1}{1 + e^t} \)