

King Fahd University of Petroleum and Minerals
Math & Stat. Departement
Quiz (1)

Name	ID	SEC	Sr
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Q1) Show that $y = \frac{c}{e^{-x} + c}$ is a family of solutions of the DE

$$\frac{dy}{dx} = y(1 - y).$$

Q2) show whether or not the initial value problem

$$x \frac{dy}{dx} - 2y = 0, y(0) = 0$$

has a unique solution.

Q3) Solve the IVP

$$\frac{dy}{dx} = \frac{xy + 3x - y - 3}{xy - 2x + 4y - 8}, y(0) = 1$$

Q4) solve the ODE: $y^2 dx + (3xy - 1) dy = 0$