

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**DEPARTMENT OF MATHEMATICS AND STATISTICS**  
**MAT 260 - 2**  
**QUIZ 2**

Name:

Student ID #:

**Question.** Solve the differential equation

$$\frac{dy}{dx} + \frac{y}{x} = x^2 y^3 \tan x \ln(\cos x).$$

**Your Solution.**