

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
MATH 260 - QUIZ 1

Name:

Student ID #:

**Question.** Find the explicit solution of the following initial value problems:

(1)  $\frac{dy}{dx} = \frac{1 - x - y}{x + y}, y(-1) = 2.$

(2)  $xy^2 \frac{dy}{dx} = y^3 - x^3, y(1) = 2.$

(3)  $y^{1/2} \frac{dy}{dx} + y^{3/2} = 1, y(0) = 4.$

**Your Solution.**