## KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS DEPARTMENT OF MATHEMATICS AND STATISTICS MATH 102 - QUIZ 4

Name:

Student ID #:

Question 1. Find the area of the surface generated by revolving the curve  $y = \frac{x^3}{6} + \frac{1}{2x}$ ,  $\frac{1}{2} \le x \le 1$  about the x-axis.

Question 2. Solve the initial value problem  $\frac{dy}{dx} = e^x \sin(e^x - e), \ y(1) = 0$ 

Your Solution.