

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
MATH 102 - QUIZ 3

Name:

Student ID #:

Question 1. Find the volume of the solid whose base is the disk enclosed by the circle $x^2 + y^2 = 1$ and whose cross-sections perpendicular to the y -axis are squares.

Question 2. Set up but do not evaluate the integral that represents the volume of the solid generated by rotating the region bounded by $y = 2^x$, $x + y = 1$, and $x = 1$ by

- (a) the line $x = 2$,
- (b) the line $y = 2$.

Your Solution.