

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 region enclosed by the parabola $y = 1 - x^2$ and the x -axis, 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 $y = 2x^2 - x^3$, $x = 1$ and the x -axis rotated by

- (a) the line $x = -1$,
- (b) the x -axis.

Your Solution.