

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
MATH 201  
QUIZ 6

Name:

Student ID #:

**Question.** Evaluate the integral

$$\iint_D \sqrt{4 - x^2 - y^2} \, dA,$$

where  $D = \{(x, y) \mid x^2 + y^2 \leq 4, x \geq 0\}$ .

**Solution.**