

King Fahd University of Petroleum and Minerals

Department of Mathematics and Statistics

Fall Semester (Term 181)

Quiz 4

MATH 201

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Name _____

ID _____

Section Number _____

ESSAY. Write your answer in the space provided.

Evaluate. (Hint: change the Cartesian integral to an equivalent polar integral). (4 points)

$$1) \int_{-7}^7 \int_{-\sqrt{49-x^2}}^{\sqrt{49-x^2}} \frac{1}{(1+x^2+y^2)^2} dy dx$$

Find the volume of the indicated region. (6 points)

2) the region bounded above by the plane $z = 5$ and below by the cone $z = \sqrt{x^2 + y^2}$

Answer Key

Testname: QUIZ4B_CAL3_181

1) $\frac{49}{50}\pi$

2) $\frac{512}{3}\pi(2 - \sqrt{2})$