King Fahd University of Petroleum and Minerals

MATH 201 QUIZ #5 Term 142

Name:	ID:	Sec:

Q1. Find the volume of the region bounded above by the surface $z = xy$ and below by the rectangle R: $0 \le x \le 1$ and $0 \le y \le 1$.

Q2 Evaluate $\int_0^4 \int_{\sqrt{x}}^2 \frac{1}{y^3+1}\, dy\, dx$

Q3 Change the Cartesian integral into an equivalent polar integral. Then evaluate the polar integral

$$\int_1^2 \int_0^{\sqrt{2x-x^2}} \frac{1}{(x^2+y^2)^2}\, dydx$$