Calculu	ıs III,	Math	201
Spring	2013	, Term	121

Quiz 5 Section 09

Name:

Instructions: Show Your Work!

- (8^{pts}) 1. Find the absolute maximum and minimum values of $f(x,y)=x^2y$ on the set $D=\{(x,y):x^2+y^2\leq 3\}$
 - (a) Without using Lagrange Multipliers,
 - (b) Using Lagrange Multipliers.
- (4^{pts}) **2.** Evaluate the double integral by identifying it as the volume of a solid

$$\int_{R} (4-x)dA, \qquad R = \{(x,y) : 0 \le x \le 4, 0 \le y \le 3\}.$$