

Math 210, Groves, Quiz 6  
Thursday, October 20, 2011, 12pm.

Name: \_\_\_\_\_

Please write clearly and show all of your work.

1. Use the *method of Lagrange multipliers* to find the extreme values of the function  $f(x, y) = x + 2y$  on the ellipse  $3x^2 + 4y^2 = 3$ .

2. Evaluate

$$\int_0^1 \int_2^4 x^2 y^3 dx dy$$