

Math 210, Groves, Quiz 10  
Thursday, November 17, 2011, 12pm.

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

Please write clearly and show all of your work.

1. Compute the line integral of  $f(x, y, z) = 3x - 2y + z$  over the curve  $r(t) = \langle 2+t, 2-t, 2t \rangle$  for  $-2 \leq t \leq 1$ .
2. Compute the line integral of the vector field  $\mathbf{F} = \langle x^2, xy \rangle$  over the circle  $x^2 + y^2 = 1$  oriented counterclockwise.