

Math 210, Groves, Quiz 11
Thursday, December 1, 2011, 12pm.

Name: _____

Please write clearly and show all of your work.

1. Compute the integral of $\underline{\mathbf{F}} = \langle e^z, y, x \rangle$ over the surface given by $\Phi(u, v) = (uv, v, u)$, with $0 \leq u \leq 1$ and $0 \leq v \leq 1$.
2. Compute the surface integral of $\underline{\mathbf{F}} = \langle x, y, e^z \rangle$ over the cylinder $x^2 + y^2 = 4$, $1 \leq z \leq 5$.