Math 240 Fall 2011
Quiz 3   Name: _____
TA: Matti Åstrand   Recitation: _____

Show all work clearly and in order, and box your final answers. You have 10 minutes to take this quiz.

1. (*5 points*) Evaluate $\int_C y\mathrm{d}x - x\mathrm{d}y$, where C is given by $x = y^2 + 1$ from $(1, 0)$ to $(2, 1)$.

2. (*10 points*) Evaluate the following line integral, where C is the straight line from $(1, 0, 1)$ to $(2, \frac{\pi}{2}, 2)$.

$$\int_C -z\mathrm{d}x - e^z \sin(y)\mathrm{d}y + (e^z \cos(y) - x)\mathrm{d}z$$

(Hint: it's easier than it may look.)