CCP **Spring 2010**
Math 271 **Yun Yoo**

Attendance Quiz 23

Name: _____ Date: _____

1. Using Stokes' Theorem to evaluate $\int_C F \bullet dr$, where

$F(x, y, z) =< x + y^2,\ y + z^2,\ z + x^2 >$, C is the triangle with vertices $(1,0,0)$, $(0,1,0)$ and $(0,0,1)$.

2. Given $F(x, y, z) =< x + y^2,\ y + z^2,\ z + x^2 >$, S is the surface of the box bounded by the planes $x = 0$, $x = 1$, $y = 0$, $y = 1$, $z = 0$, and $z = 2$. Using the Divergence Theorem to evaluate the surface integral $\iint_S F \bullet dS$, that is, calculate the flux of F across S.