Math 302
Any answer without justification worths nothing

Quiz 3

6/ 11/ 2014

Name: **ID #**

Problem 1 (4 points): Show that the tangent plane to the surface $z^2 = 2x^2 + 3y^2$ at any point $P_0 = (x_0, y_0, z_0)$ passes through the original. That is the equation of the plane has the form $ax + by + cz = 0$

Problem 2 (2 points)
Find $div(curlF)$, if $F = z^2i + y^2j + x^2k$

Problem 3 (4 points):
Compute the integral $\int_C xydy$, where C is given in the adjacent figure.