Section _____ **Name** _____

TA _____ **Student Number** _____

Math 126A **Calculus With Analytic Geometry III** **Fall 1995**

QUIZ 5

10/26/95

Don't worry about algebraically simplifying numbers (i.e. you may leave radicals in the denominator, fractions unreduced, etc.). **Show your work.**

In both of the following problems, C is the curve in space given by the parameter representation

$$(x(t), y(t), z(t)) = (4t, 2 - t^2, e^{-t}),$$

and Q is the point on C corresponding to the parameter value $t = -1$.

For both problems, equations of lines should be written in parameter form, and equations of planes should be written in the standard form $Ax + By + Cz = K$.

(1) Indicate the type of tangent object C has at Q (line or plane), and write an equation for it.

Type of tangent object:	
Equation for tangent object:	

(2) Indicate the type of normal object C has at Q (line or plane), and write an equation for it.

Type of normal object:	
Equation for normal object:	