Math 2110Q - Multivariable Calculus Name:

## Show all your work to get credit!

1. Find the tangent line to the curve  $x = t, y = e^{-4t}, z = 5t - t^3$  at the point (0, 1, 0).

## **Reading Question:**

In single variable calculus, linear approximation is done using tangent lines. In multivariable calculus, linear approximation is done using \_\_\_\_\_\_.