Name:
September 15, 2016
MAC 2313.6717
Cyr

## Quiz 3
### You must show all work to receive full credit!!

**Problem 1.** (6 points) Find a vector equation for the tangent line $\mathbf{L}(t)$ to the curve $\mathbf{r}(t) = \langle t^2 + 1, 4\sqrt{t}, e^{t^2 - t} \rangle$ at the point $t = 1$.

**Problem 2.** (4 points) Find the length of the curve $\mathbf{r}(t) = \langle \cos(4t), \sin(4t), 4t \rangle$ over the interval $0 \le t \le 2\pi$.