MATH 261 Quiz 3 Name: .
Student number:

Show all work. 5 points each.

1. Find the equation of the tangent line to the curve $\mathbf{r}(t) = \langle t, e^t, 2t - t^2 \rangle$ at $\mathbf{r}(0) = \langle 0, 1, 0 \rangle$.

2. Evaluate the integral $\int e^t \mathbf{i} + 2t\mathbf{j} + \frac{1}{t}\mathbf{k}\, dt$. Don't forget the constants.