

Math 301-162 Quiz 1 (A)

Name:.....Sec#:.....ID#:.....Ser#:.....

Q.1: Find parametric equations of the tangent line to the graph of the curve defined by $\vec{r}(t) = e^t \cos 3t \hat{\mathbf{i}} + e^t \sin 3t \hat{\mathbf{j}} + e^t \hat{\mathbf{k}}$ at $t = \pi$.

Q.2: Find the directional derivative of $f(x, y) = \frac{2xy}{3x - 4y}$ at $(-1, 2)$ in the direction of the vector $8\hat{\mathbf{i}} - 6\hat{\mathbf{j}}$