

Math 225: Calculus III

Quiz 3 Feb. 6/8, 1996

Name: _____

Section: _____

1. Determine the equation of the plane perpendicular to the curve defined by $r(t) = te^{t-1}\mathbf{i} + t^2\mathbf{j} + (2-t)\mathbf{k}$ at the point $(1, 1, 1)$.

2. Find the the unit tangent vector \mathbf{T} at $t = 1$ for the curve defined by $r(t) = t\mathbf{i} + \sin(\pi t)\mathbf{j} - t\mathbf{k}$.