

**Math 225 : Quiz****Sept. 16, 1991**

Show your work on a blank sheet of paper with your name and date at the top (no torn edges). Circle your final answer. You may use a calculator.

1. Find the equation of the line tangent to the curve

$$(t) = (t^3 - 1) \mathbf{i} + t^2 \mathbf{j} + t \mathbf{k}$$

at the point  $(7, 4, 2)$ .

2. A particle's position is

$$(t) = \cos(t^2) \mathbf{i} + \sin(t^2) \mathbf{j}$$

Compute its speed at  $t = 3$ .