

MATH 261 Quiz4

Name: .

Student number:

Show all work. 5 points each.

1) Sketch the curve with the vector equation $\mathbf{r}(t) = \langle t^4 + 1, t \rangle$ and indicate with an arrow the direction in which t increases.

2) Find the unit tangent vector for $\mathbf{r}(t) = \cos(t)\mathbf{i} + 3t\mathbf{j} + 2\sin(2t)\mathbf{k}$ at $t = 0$.