MATH 261 Quiz 15 Name: .
Student number:

Show all work. 5 points each.

1. Sketch the curve $\mathbf{r}(t) = \langle \cos(t), \sin(t) \rangle$ for $0 \leq t \leq \pi$ and find the equation of the tangent line to the curve when $t = \dfrac{3\pi}{2}$.

2. Find the equation of the plane that contains the lines $\mathbf{r}(t) = \langle t, 2t, 3t \rangle$ and $\mathbf{s}(t) = \langle -t, t, -t \rangle$.