

Quiz 3

MAC 2313

Fall 2006

Full Name: _____

Score: _____

Show all of your work for full credit.

1. Show that if $|\vec{r}(t)| = c$ (a constant), then $\vec{r}'(t)$ is orthogonal to $\vec{r}(t)$ for all t .

2. Show that

$$\lim_{(x,y) \rightarrow (0,0)} \frac{x^2}{x^2 + y^2}$$

does not exist