

Quiz 6

Apr. 20, 2006

Given that

$$\mathbf{r}(t) = \langle t^2 - 1, e^{2t}, \sin 3t \rangle,$$

calculate

- (2 pts)

$$\lim_{t \rightarrow 0} \mathbf{r}(t) = ?$$

- (4 pts)

$$\frac{d}{dt} \mathbf{r}(t) = ?$$

- (4 pts)

$$\int \mathbf{r}(t) dt = ?$$