

## QUIZ 6

Name \_\_\_\_\_

1. Given  $\vec{r}(t) = \langle t^2, t, \sin(t^2) \rangle$  find all values of  $t$  for which  $\vec{r}'(t)$  is parallel to the  $xy$ -plane.

2. Find all values of  $t$  for which  $\vec{r}(t) = \langle \sin(t), \csc(t), \cot(t) \rangle$  is continuous.

3. Let  $\vec{r}(t) = \langle t^2, t, t^2 - 5 \rangle$ . Find all values of  $t$  such that  $\vec{r}(t)$  and  $\vec{r}'(t)$  are orthogonal.