

**Quiz 7**; Wednesday, March 9  
**MATH 53** with Professor Stankova  
**Section 109**; 11-12  
**GSI**: Eric Hallman

**Student name:**

You have 10 minutes to complete the quiz. Calculators are not permitted, and remember to show your calculations and explain your reasoning in order to receive full credit.

1. A goat is running around in a circle, and as a function of time its position is given by  $\langle x, y \rangle = \langle 2 + \cos t, \sin t \rangle$ . If  $R$  is the goat's distance from the origin, use the Chain Rule to find  $dR/dt$ .