

Name: \_\_\_\_\_

Section: \_\_\_\_\_

**MATH 120A**

**QUIZ 5**

♡ February 14, 2002 ♡

You may use a scientific calculator to complete this quiz. No notes please.

1. (5 points) A long-playing record (LP) has a 12 inch diameter and rotates with a constant angular speed of  $33\frac{1}{3}$  RPM (thats “thirty-three and a third”).

(a) What is the angular speed of the record in radians per minute?

(b) What is the linear speed of a point on the outer edge of the record?

2. (5 points) A merry-go-round is rotating at the constant angular speed of 5 RPM counterclockwise. The platform of the ride is a circular disk of radius 28 feet. Impose a coordinate system so that the center of the merry-go-round is at the origin. You jump onto the edge of the ride at a point on the positive  $y$ -axis. Give the  $x$  and  $y$  coordinates of your position after 50 seconds.