

Math-19 Section 1

Homework #7

Due: 7/22/2019 9:00am

Reading

Sections 6.1

Problem

A blu-ray disk has a diameter of 12 cm. The track of recorded information on the disk spirals in from the outside toward the center. A blu-ray player must make sure that the track passing under the optical reader stays at a constant linear speed, so the motor will vary from 200 to 500 rpm, depending on where the disk is being read.

1. Which angular speed is used for the part of the track on the outer rim of the disk? Why?
2. What is the linear speed of the outer part of the track in cm/s?
3. What is the distance from the center of the disk to the innermost part of the track?