Paper Submission No. 05 (Fall 2018)

PHYS 203A: College Physics

Due date: Thursday, 2018 Oct 11, 12.35pm, in class

(Name) (Signature)

Instructions

1. Your submission should include only this page. Other forms of submissions will not be accepted. Please print this page, and write your solution on the back side.
2. Show your thought process in detail and organize it clearly.
3. Make sure your answer has the correct units and the right number of significant digits.

Question

A turntable is rotating with a constant angular speed of 6.5 rad/s. You place a penny on the turntable. The coefficient of static friction between the penny and the turntable is 0.50.

1. List the forces acting on the penny.
2. Which force contributes to the centripetal acceleration of the penny?
3. What is the farthest distance away from the axis of rotation of the turntable that you can place a penny such that the penny does not slide away?