Big Exam #3. Remember you are being evaluated on your *communication* of the physics.

1. Please derive the relationship for centripetal acceleration: $a_c = v^2/r$. You may have noticed that I neglected to define my lens in the video. Please do a better job than I did.

2. Three pennies are sitting on a turn table at different radii as shown at right. When I start the turn table up,
a) Which penny slides off first? And explain why you know this with clear reference to the relevant physics
b) Draw the trajectory of that penny.
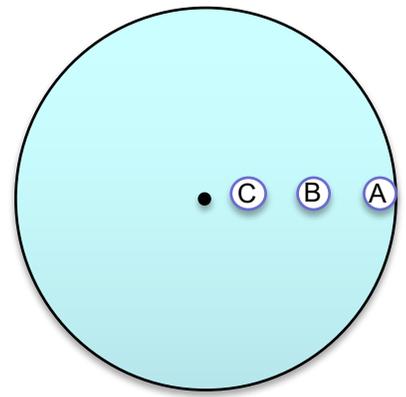
3. If a penny is located at a radius of 10 cm and has a static coefficient of 0.3 with the surface, what is the speed of the penny when it slides off the turn table?