

## Physics 1121 Experiment 10 Homework

1. Give an example where the force due to static friction does not equal  $\mu_s N$ , where  $\mu_s$  is the coefficient of static friction and  $N$  is the normal force of contact.
2. What values are you supposed to use for the three radii in the experiment?
3. Calculate the value of  $\Delta x$  for each of the radii you will use in this experiment. Remember that the circumference of the circle is divided into 10 equal parts.
4. If you could double the maximum force due to static friction with all other quantities left unchanged, how much would the critical velocity change?

Note: You should answer questions 2 and 3 in the new version of Experiment 10 before you come to class.