Name: _____ Lab Section: _____ Date: _____

PreLab: Centripetal Force

Instructions: Prepare for this lab activity by answering the questions below. Note that this is a **Pre**Lab. It must be turned in at the start of the lab period. Time cannot be given in lab to perform PreLab activities. After the start of lab activities, PreLabs cannot be accepted. Explain your answers. Points will be taken off if your work is not neat and well organized.

1. (3 points) An object moving in uniform circular motion is accelerating. How can this be since the object is not speeding up nor slowing down?

2. (9 points) If it takes 900 s for an object to carry out 15 revolutions

   A) What is the period of rotation?

   B) What is the velocity it the object is 16 cm from the center of rotation?

   C) What is the centripetal force on a 45 g mass spinning 16 cm from the center of rotation?

3. (3 points) Explain what would happen if you were not to follow the safety warnings. Be specific.