Name: _____ Lab Section: _____ Date: _____

Prelab: Charge to Mass Ratio

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. Points will be taken off if your work is not neat and well organized. **To receive credit you must show your work.**

1. (5 points) The electrons in the lab are accelerated through a potential difference that you control. What is the speed of an electron that is released from rest and accelerated through a potential difference of 160 volts? Hint: consider conservation of energy.

2. (5 points) Explain in your own words how you will determine the charge to mass ratio.

3. (5 points) What precautions are given in this experiment? What would happen if you did not follow these precautions?