Phys 11A – Eiteneer
Lab 08 Write-up

Name: _____
Lab section: _____
Names of partners, if any: _____

Please answer the following questions. The answers should be typed.

1. Make a graph of x vs. t, and a graph of y vs. t, as instructed in the lab manual. Make sure to carefully label the graphs and the axes. Also, make sure to include a legend so that I can tell which part of data belongs to which puck.

2. What is the time of the collision? Is this value the same for x vs. t graph and y vs. t graph?

3. What are the units of kinetic energy?

4. Is velocity of CM conserved during collision (use your data to answer this)? Should it be?

5. Make a graph of Vcmx vs. t, and a graph of Vcmy vs. t. What information can you get from these graphs?

6. Is total momentum conserved during collision (use your data to answer this)? Why or why not?

7. Is total kinetic energy conserved during collision (use your data to answer this)? Why or why not?

8. What is your % change in kinetic energy? What does this value tell you?

9. What could contribute to the errors? List at least 2 or 3 sources of error, specifying whether each of them contributes to random error or systematic error. Note: no credit will be given for listing "human error."

What to submit:
- ✓ Your four data tables
- ✓ Four graphs: x vs. t (one graph for both pucks), y vs. t (one graph for both pucks), Vcmx vs. t, Vcmy vs. t
- ✓ Your answers to these questions
- ✓ Put all your tables, graphs, and answers to these questions in ONE document. Convert this document to PDF form, and submit INDIVIDUALLY, by going to Assignments, Lab 08.
- ✓ This will be due at 6pm ONE week from today.