QUESTIONS TO HAND IN – EXPERIMENT 12

NAME_____

LAB INSTRUCTOR_____ **LAB DAY/TIME**_____

1. If two particles of equal mass approach each other in opposite directions at the same speed, what is the total momentum of the system before they collide?

2. In the example above in question 1, what is the total momentum of the system after they collide?

3. Consider two particles of 100 g each that are about to collide, with the first one traveling at 10 m/s toward the North and the second one traveling at the same speed to the East. What is the total momentum of the system before they collide?

4. In the example above in question 3, what is the total momentum of the system after they collide?

5. If the two particles enter into a completely inelastic collision, what is the final velocity of the resulting composite particle?