Physics 1121 Exp.8 1-D Collisions Homework

NAME:_____

1. What is the difference between an elastic collision and a completely inelastic collision?

2. A 300 g mass moving at 7.5 cm/s eastward collides with a 500 g mass moving at 5.0 cm/s westward on a horizontal low friction surface. The two masses stick together after the collision. What are the velocities of each mass after the collision?

3. The collision in Question 2 lasted for 0.11 sec. Calculate the force that acted on each mass.

4. For the same two masses and initial conditions as in Question 2,
   a) What are the final velocities if the collision is elastic this time?
   b) Calculate the force that acted on each mass.