Momentum Conservation to Oscillation

Step 1: In the picture below fill in all the information about the system before the pellet collides with the hovercraft

Step 2: Show your calculations for the kinetic energy and the momentum of the pellet **before** it collides with the hovercraft

Step 3: Show the calculations required for finding the speed and kinetic energy of the system immediately **after** the collision

Step 4: Show the calculations to find the amplitude (in cm) and the period of oscillation.

Step 5: Show the calculations that you did to find the mechanical energy lost when the pellet became embedded into the hovercraft. Enter your answers into the program to make sure you did everything correctly.