

## Physics 151 Worksheet #8: Conservation of Momentum

Name: \_\_\_\_\_

Partner(s): \_\_\_\_\_

**Directions :** Complete the following questions based on the computer simulations. Please show all of your work and explain all of your reasoning. Place boxes around your final answers.

### Simulation #1: Change in Momentum (Basketball)

Determine the unknown height from the change in momentum and the kinetic energy lost.

<b>Answer =</b>	
-----------------	--

### Simulation #2: Inelastic Collision

<b>Answer =</b>	
<b>Answer =</b>	
<b>Answer =</b>	

**Simulation #3: Ballistic Pendulum**

Determine the values of the unknown variables.

<b>Answer =</b>	
<b>Answer =</b>	
<b>Answer =</b>	