$\qquad$

## Bouncing Ball Individual Take Home Assignment: Drop This

Directions: For each of the following questions be sure to fully support your answers with thorough reasoning and show all appropriate work.

1. Use your model to determine the rebound height when your ball falls off your tabletop.
2. Use your model to determine the rebound height when your ball falls from a height specified by your facilitator.
3. Use your model to determine the initial drop height required for your ball to rebound to the height of your tabletop.
4. Use your model to determine the initial drop height required for your ball to rebound to a height specified by your facilitator.
5. If you drop your ball from the height you determined in question (3), what do you predict the height of the second bounce will be? Explain your reasoning.
