

## **Tennis Ball Rebound – Lab Report**

### **Challenge and Givens**

#### **Procedure:**

- What materials were given?
- What other materials were needed?
- Walk step by step through the lab. What was done? What data was taken?
  - Consider both parts of the lab, both the first part that yielded your equation and the second where the equation was tested.

#### **Data: (Data table, graph, and calculations)**

- Create a chart or table of your raw data taken.
- Include a printout of your graph with trend line equation.
- Include the calculation of your theoretical rebound height based on your given drop height.
- Include the value of your experimental drop and rebound height.

#### **Error Analysis:**

- Comment on the sources of error from the equipment used as well as error that may have occurred due to the procedure itself.
- How could these errors be avoided in the future?
- Calculate the percent error between your final predicted rebound height and the experimental rebound height.

#### **Analysis:**

- Based on your data, do you believe that the correlation between the drop height and rebound height is linear? Comment on the consistency of your measurements.
- Would you suggest trying another kind of fit to produce your prediction equation in the future?

#### **Conclusion:**

- Was your equation successful? (Final thoughts, why or why not)
- What kind of follow up experiment would you suggest conducting?