Name:	Student ID:

Physics 9HA DL #05 Lab Report

I. **Apparatus** – Submit a picture of your experimental apparatus (the ramp & papers).

II. **Data Analysis**

1. Fill in the table below with the data you collected for 5 different starting heights. [Remember, each data point is an average of 4 runs from the same height.]

y	R	R^2

2. Plot the data points on two separate graphs, taking care to follow guidelines provided in the Background Material (the graphs do not need to have equal scales, plot the extreme points as far apart as possible, etc.) You have a number of alternatives at your disposal for making this plot:
   - Use this online graphing calculator. You can plot points by typing them into the left panel as a series of ordered pairs: (1.2, 3.4), (–2.3, 6.0), etc. Then in the upper-right corner you can click the "share your graph" icon, which will allow you to print it (or use the print function to directly create a pdf document), or export it to a png document, which is then converted to a pdf document for submission to Gradescope. Google sheets can also be used, though it is a bit more work to create a plot.
   - A pdf of graph paper is provided with this document, which you can print (then plot and scan) or digitally edit.
   - Any graph paper, or just blank paper and careful use of a ruler (this should be your last resort).
3. Draw a conclusion about which of the two proposed functions is the correct one, based on your two graphs.

III. **Questions**

1. Describe what assumptions were made that might invalidate the result if they turned out to be wrong.

2. Briefly discuss the likely sources of error in your experiment, including the following considerations:
    a. how the procedure can be improved to give cleaner results

    b. the likelihood that the errors could have led to an inaccurate conclusion

3. (optional) Feel free to confirm your conclusion with the "fancy physics calculations" that your clients don't trust.