Name:	Student ID:

Physics 9HD DL #04 Lab Report

I. Data Analysis

1. Create a table for your data, from which you will create your plots.

2. Plot the data points on two separate graphs, taking care to follow the usual guidelines (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. 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. Explain how you come to this conclusion.

II. **Questions**

1. Describe the properties of the equipotential surfaces between the conductors that differ by $1V$ (i.e. $1V$, $2V$, $3V$, and $4V$). Namely, are they equally-spaced, as they were in the experiment performed in the Background Material? Why or why not?

2. Describe the electric field. Which way does it point for this experiment, and where is it stronger, near the center conductor or the outer one?