**MAE224 Fluids Lab #1 Hydrostatics *(20 points)***

**Names:**

**Lab Day:**

**Instructions:** Complete this worksheet as you work through the lab. Once completed, submit it through Gradescope before the start of your next lab. Each group should submit a worksheet.

**Exercise 1:** Calibration Curve

**A)** Why did we use a ruler to measure height and not use the markings on the graduated cylinder instead? What is the uncertainty in height measurement? *(4 pts)*

**B)** Tabulate your data below and plot pressure versus the difference in heights between the water columns. Be sure your table/plot includes labels, caption, units, legend, appropriate number of significant figures, etc. *(6 pts)*

Insert Table here

Insert Chart here

**C)** What kind of curve-fit makes the most sense for the plot in part (C) and why *(2 pts)*

**Exercise 2:** Other Questions

**A)** Estimate the uncertainty in your data. What is the biggest source of error? *(4 pts)*

**B)** Does the calibration curve you found for the sensor match that in the manual? Why might it be different? *(2 pts)*

**C)** What is the shape of the calibration curve (can you show that this truly is the shape)? *(2 pts)*