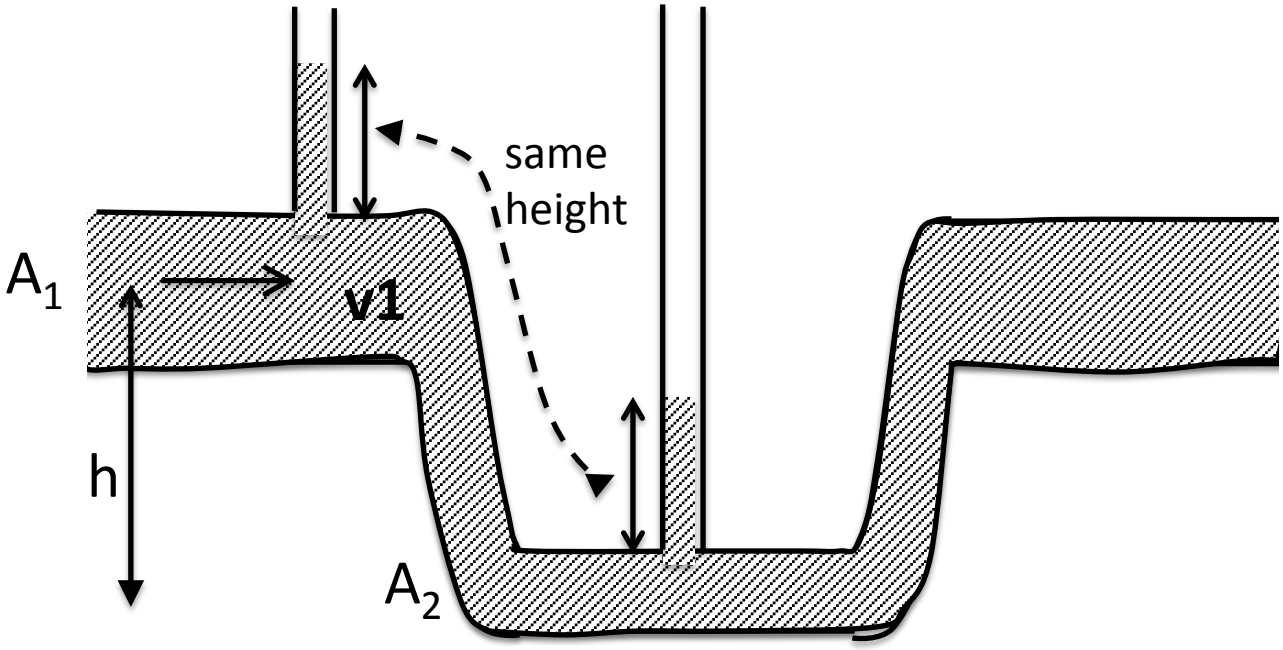
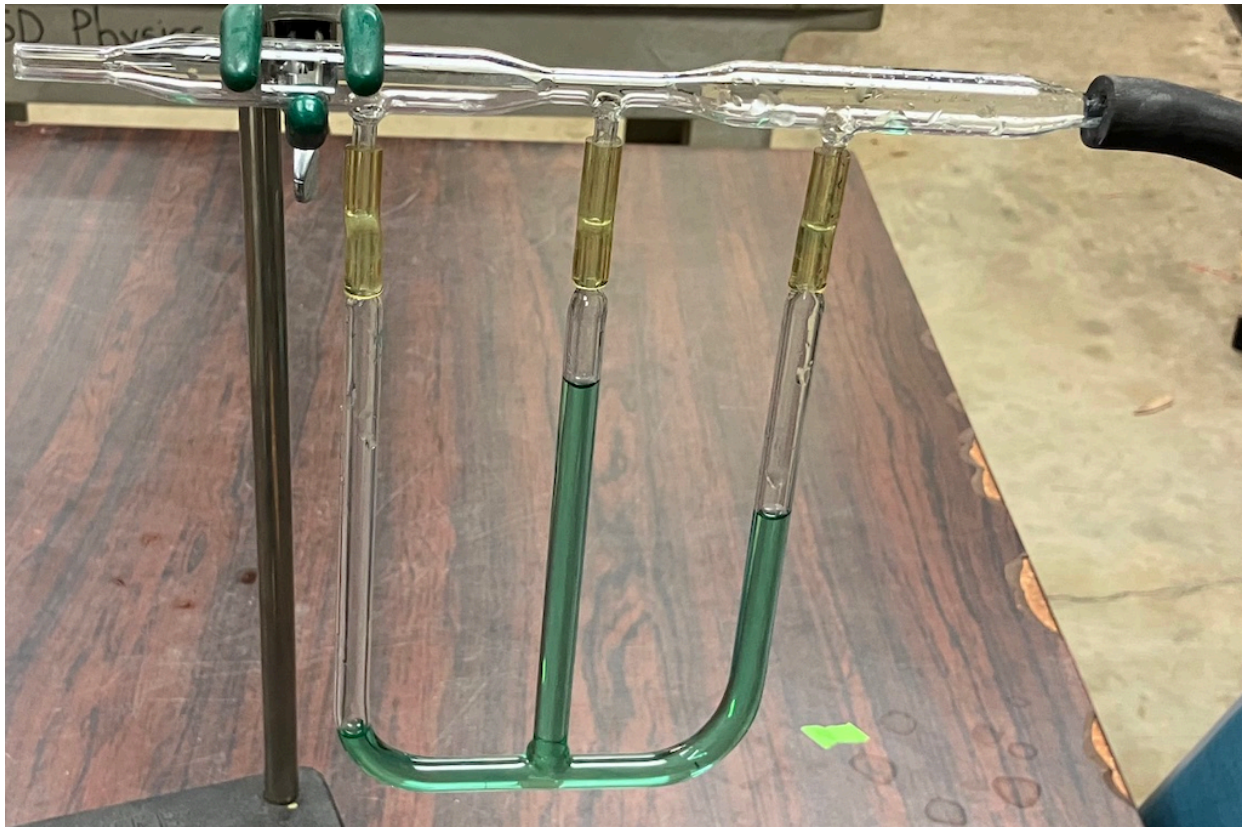
Problem 1
Consider the following Venturi-like meter



with $A_1=2A_2$. Find h in terms of v_1.

Problem 2

The image below shows the demo shown in class. Air flows from left to right.



(a) Assuming the density of air is the same everywhere and that Bernoulli law holds, explain why the middle column is the highest.

(b) Assuming the density of air is the same everywhere and that Bernoulli law holds, explain why what you see in the image is impossible (i.e. that the left and right columns have different height)

(c) The reason the left and right column are of different height is that Bernoulli law fails because energy is lost as the air moves from left to right due to friction. How can that explain the height difference?