SUBATMOSFERIC PRESSURE

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We're going to explain the process to obtain the gravity in our region. Let's start!

- 1. MATERIAL
 - Beaker (1)
 - Plastic tube (2)
 - Stand (3)
 - Distillation head (4)
 - Pressure sensor MultiLogPRO (5)
 - Water (6)
 - Food coloring (7)
 - Ruler (8)
 - Laboratory clamps (9)
 - Computer (10)



2. PROCEDURE

First, we built the structure and the solution of water with food coloring. Then, we put the ruler trying to keep the plastic tub straight and the 0's rulers keeping on the top of the solution.

After that, we started the measures. The first measure had done without absorbing to obtain the atmospheric pressure (Pressure 1). Next, one member of the group absorbed from the top of the distillation head making the first measure. We repeated that sixteen times approximately. Finally, we introduced all the measures in the computer and we operated the dates to obtain it to an international system and then, we could introduced these dates into the formula.

The correct formula was:

$$g = \frac{(P1 - P2)}{\rho \cdot h}$$

3. CONCLUSIONS

Our results aren't exactly as the earth's gravity. This is because of the Pressure sensor MultiLogPRO wasn't very precise. Another factor of error was the precision of the person who looks the ruler to know the height and the person who looks at the computer to choose the correct pressure.

Finally, we think that our result is good in our conditions in the lab.