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III- Validation

Purpose:
Our purpose is to see if the temperature increases as the pressure increases.

Equipment:
Our team used the LabPro, a jar that was connected to the LabPro through a series of tubes, a barometer, and a pump. We also put a thermometer into the jar and we hooked up a scientific calculator to the LabPro.

Procedure:
We first installed the jar with a hole in the lid so we can pump air into it. The next thing we did is to connect the jar to the pump and to the barometer through a series of rubber tubing. We also put the thermometer inside the jar. Then we attached the barometer to the LabPro, which was connected to the scientific calculator.

After preparing the experiment we closed the lid and then we started pumping air into the jar. We started writing the data that was displayed on the LabPro and the thermometer. We wrote down the data that we were receiving every three pumps. In total, there were thirty pumps, resulting in ten different data sets.

Analysis:

Time (sets of 3)	**Pressure (kPa)**	**Temperature (f)**
1st	**99.2**	**65**
2nd	**102.1**	**66**
3rd	**104.3**	**67**
4th	**105.6**	**68**
5th	**107.3**	**70**
6th	**108.7**	**70**
7th	**110.8**	**71**
8th	**112.8**	**71**
9th	**114.1**	**72**
10th	**114.9**	**72**

Analysis:

This chart shows the results of our experiment that we did about temperature changing with pressure. This also shows that temperature changes really slow relatively to the pressure and the chart turn out how we predicted. This experiment so that we don't make a mistake about the hypothesis. Ok the chart numbers tell how the temperature increases and this numbers may be off by just -½. The pressure may be off by +- .05. In the temperature we always increased the number instead because in the thermometer you don't have decimal points. And in the pressure we may not get the right pressure because of the timing we might of forgot for some seconds and that could of get the measurements a bit off.

Conclusion:

Our hypothesis of balloon fest is being support with this experiment. This experiment shows that temperature changes with pressure. Therefore if pressure drops at higher altitude that means that temperature will also drop. One thing we can change is the way the gondola is going to be put; we can put some kind of shade so that the sun does not interfere with the temperature.