

10th IYNT 2022; Tskneti, Georgia

Problem 26. *Balloon pressure*

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Problem statement: *Balloon pressure*

Determine the *pressure of air inside* an *inflated balloon*.

Report

Strong points	Weak points
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- 1. Gave the definition of pressure +the formula for it with interpretation (great for introduction)
- 2. Defined hydrostatic pressure
- 3. Experimental setup + methodology

- 1. **Completely irrelevant theoretical part(formula they used is only used for liquids in a cylinder)**
- 2. **Unclear explanation as to why the formula for hydrostatic pressure $p=Dgh$ (only for cylinders of fluid) can be applied to an irregular shape.**
- 3. Not enough theory for explaining the phenomenon $p=F/A$, without mentioning how the force/surface area was measured
- 4. **No correlation between the theory and the experiment**
- 5. **No experimental errors**
- 6. did not understand the calculations of the experiment
- 7. **Did not take into consideration a lot of factors for the experiment(elasticity of the balloon, the increasing width etc.)**
- 8. No photos/ videos showing the experiment

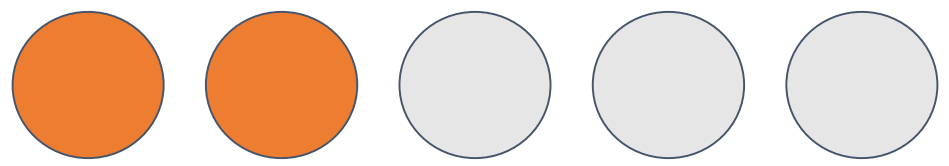
Theoretical Part					
Experimental Part					
Conclusions					

Opposition

Strong points	Weak points
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1. Asked relevant questions regarding the experiment in the clarifying questions
2. Had a complex presentation regarding the reporter's experiment
3. Observed the lack of errors and variety of the parameters

1. Missed out on huge reporter mistakes
2. Did not give solutions to the mistakes he noticed
3. Didn't focus enough on the lack of theoretical part
4. A lot of irrelevant questions regarding the subject in the discussion topic



Discussion topics

1. Is the speed of increasing the air pressure in the balloon related to the inflation time of the balloon?
 - It does.
 - **I don't think this question is relevant as we have to measure the condition in force stability conditions.**
2. Is there a air pressure inside a balloon depends on the size of the balloon?
 - It does, more volume same quantity of air pressure lower.
 - **Agree with REP**
3. Is this possible to determine the pressure in the balloon?
 - It is by the formula $F = dgh$
 - **I don't agree with the REP on the formula**
4. Do you have any experiment about the air pressure around the ballon?
 - We solved what the problem stated.
 - **We agree with the REP**
5. The above to the see level influences the results?
 - Yes, it does.
 - **Agree with both**