



Review - Problem No. 8

Magnet and matchstick

Myrto Floridou- Team Fryganiotis GR
I.Y.N.T.



Reporter - Pros & Cons

1. Excellent definition of the phenomenon.
2. Presence of visual aid & demonstrations.
3. Presence of hypotheses
4. Interesting results.
5. Conducted the experiment multiple times

1. No good structure
2. Included formulas that are not estimated
3. Didn't analyse the parameters
4. Didn't test parameters such as power of the magnet, room temperature, humidity, age of the magnet and the matchstick, type of the matchstick, iron concentration.
5. Used only one kind of magnet.
6. Experiments conducted in a non-controlled environment.
7. No possible errors and the reasons behind them explained.
8. unclear method
9. Didn't explain graphs

Opponent - Pros & Cons

- 1. She asked relevant questions to the theory such as why the materials are ferromagnetic.**
- 2. Opponent highlighted the lack of definitions & theoretical background.**
- 3. Relevant questions to the experiment.**

- 1. He didn't notice the missed parameters such as the power of the magnet, room temperature, what interferes in the magnetic field, humidity, age of the magnet and the matchstick, color of the matchstick, iron concentration.**
- 2. He insisted too much on ferromagnetism and spent too much time on it.**
- 3. He didn't insist on the lack of possible errors and the reasons behind them in the experiment.**

REPORTER VS OPPONENT- POINTS DISCUSSED

Reporter



1. Explained the used mechanism and the representation
2. Explained the relevancy
3. Explained ferromagnetism
4. Said that it would flatten at the end.

Opponent



1. Asked about the linear representation in the graphs.
2. Asked how the graph was relevant to the problem
3. Talked about ferromagnetism and how objects become ferromagnetic.
4. Asked if the line in the graph would continue increasing if she continued experimented and why.



Our opinion

- 1) We believe that the graphs were relevant to the phenomenon
- 2) Moreover, it is our firm belief that the magnetism in ferromagnetic materials is caused by the alignment patterns of their constituent atoms.
- 3) No opinion (theoretical question)
- 4) The opponent is right and it was a good question.



Suggestions for further improvement

- About the reporter:
 - We also propose the reporter to investigate the iron concentration through mixing the burned match with ferrocyanide and observing the intensity of the color
 - Include more significant parameters such as temperature humidity iron concentration age of materials, different types of matchsticks etc
- About the opponent :
 - Investigate the significant role of different parameters.





YOU **ALL**

FOR

YOUR ATTENTION