

IV Versatile solvent

dependent variable: polarity

independent variable: If the item dissolves

control group: water and oil

controlled variable:

✓ hypothesis: If polarity is related to if the item dissolves then ethanol will not dissolve because it isn't polar.
with the water

observation/data:

tube 2
ethanol and water

the ethanol does dissolve with the water, you can still smell the ethanol

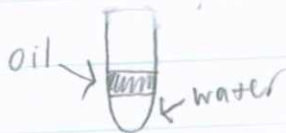
tube 1
oil and water

The oil sits on top of the water and they do not mix

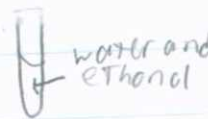
tube 3
- ethanol and oil

The oil sits on top of the ethanol and doesn't mix

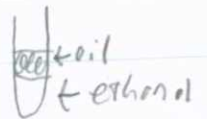
tube 1
oil + water



tube 2
water + ethanol



tube 3
ethanol + oil



error analysis: next page...

conclusion on back... →

IV

Conclusion: my hypothesis was incorrect because the ethanol did dissolve with the water. This happened because ethanol can maybe contain some polar molecules.

If polarity is related to if the room dissolves then the ethanol will not dissolve with water because it isn't polar. This isn't true because the water and ethanol mixed showing that ethanol has at least some polar properties because polar objects mix together more easily unlike polar objects mixing with non-polar objects which are very hard to mix together.

my hypothesis supported

↓ error analysis: temperature could have altered the density or properties of the liquids causing the outcome of the experiment to change. hour