$$\text{Relative Average Deviation} = \frac{(\text{Rel. Dev.}_{\text{trial 1}} + \text{Rel. Dev.}_{\text{trial 2}} + ...)}{\text{Number of trials}}$$

In the third part of this experiment (part C), the calibration of a pipet was required for the quantitative determination of whether volume changes when two different liquids are mixed together or not. At first, we calculated the mass of water that is delivered by the pipet using the following formula: mass (water) = mass (flask with 5 mL added) – mass (flask, prior to adding 5 mL). Secondly, we reckoned the Pipet's volume in each procedure, which leaded us to end up having five discrete values. We then computed the average volume delivered and the deviation of each individual value from this average by using the same equations used in part B, however, this time we looked to calculate the pipet not the flask.

For the fourth part of the experiment (Part D) we computed the density of the liquid from the mass data and the average flask volume from the calculations used in part B and the used the following equation:

$$m_{\text{liquid}} = m_{\text{full flask}} - m_{\text{empty flask}}$$

$$d_{\text{liquid}} = \frac{m_{\text{liquid}}}{V_{\text{flask, average}}}$$

The next step would did was that, we calculated and reported the average of our determinations, the absolute and the relative deviations of the individual results, the average deviation, and the RAD by using the same equations that were mentioned above.

For the last part of this experiment (Part E), the volume of the liquid was calculated through the mass difference between step E4 and E1, and the density of the liquid, which has already been calculated in part D: $V_{\text{liquid}} = \frac{m_{E4} - m_{E1}}{d_{\text{liquid}}}$

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