Chemistry: Mass vs. Volume Lab, discussion questions

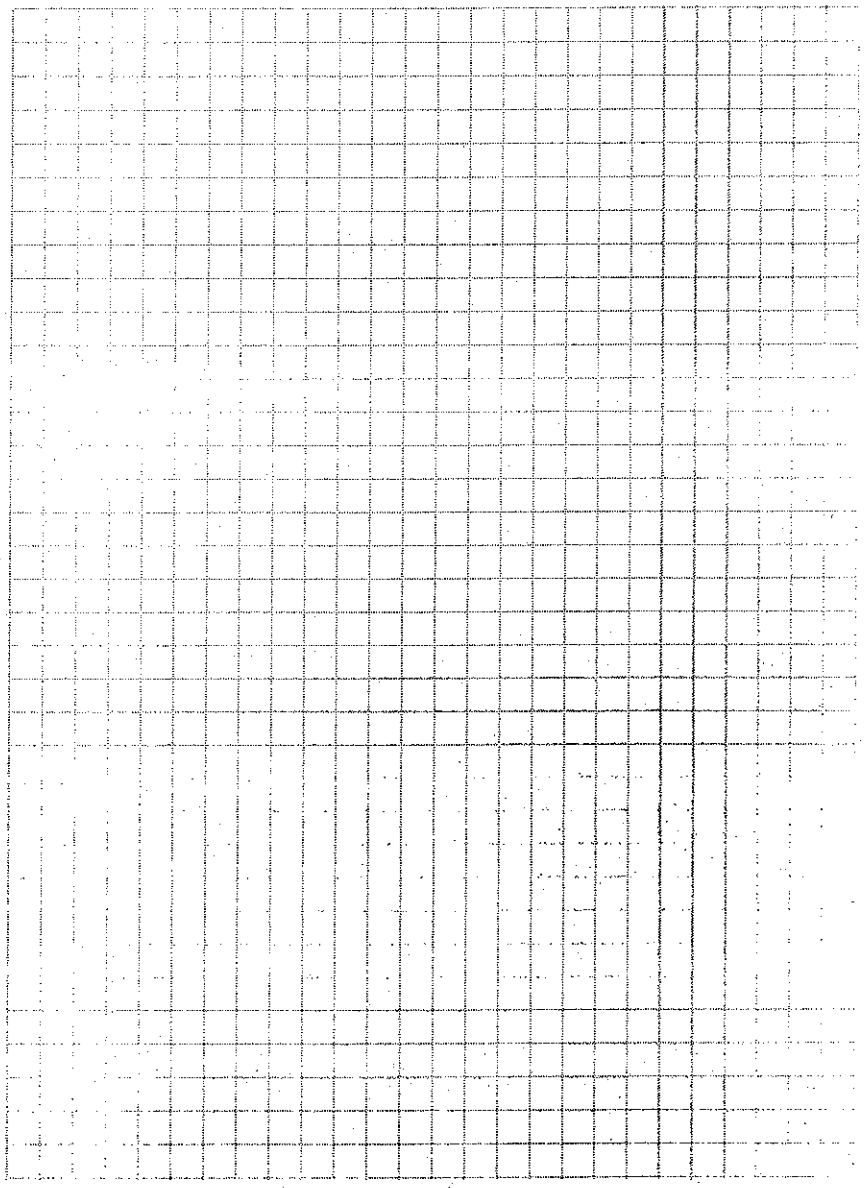
1. What is water displacement, and how is it useful?

2. For your cylinders you found the volume using water displacement, and for the blocks you found volume by measuring and calculating. Are you able to compare results of mL to cm^3 and why?

3. For the water and ethanol, why is it necessary to find the mass of the empty graduated cylinder?

4. You have two blocks and one has a mass of 2.5 g, the other has a mass of 10 grams, what is different about them? Draw a particle diagram to show your answer.

5. Plot a graph of mass (y) vs. volume (x). Put all of your data on the same graph. Use a different color or symbol for each substance's points. Do not connect the dots, but rather, draw a straight best-fit line.



6. Which substance has the steeper line? What does that mean?

7. What was the independant variable, dependant variable, and constant in this experiment?