1. State Charles´ Law.

2. Write the formula for Gay-Lussac´s Law and name the 2 variables that must be constant.

3. Draw the graph of Boyle´s Law.

4. If the volume of a balloon is doubled then what will happen to its pressure? (at constant T and n)

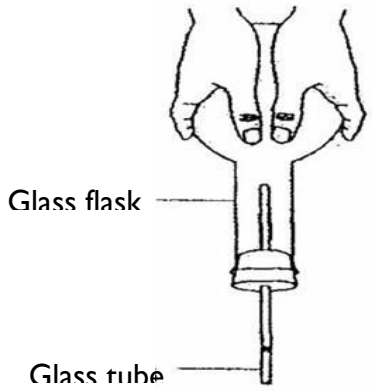
5. Eugenio had a metal box with an initial temperature of 10 °C and a pressure of 5 atm. He then heated it to 60 °C. What was the final pressure? (*Hint: what units should T be in?)*

6. María put 64 g of oxygen gas (O_2) into an empty 20 L container at 37 ° C. What is the pressure in her container? (*Help: The molecular mass of O_2 is 32 g/mol)*

7. A 127 ° C and 3000 torr, David´s gas occupies 2 m^3. What volume will the same gas occupy if the temperature changes to 227 ° C and a pressure at 500 torr?

8. After his birthday party, Manolo put his balloon in the fridge. 5 minutes later, he noticed the balloon had shrunk. Explain why? Which gas law does it relate to?

9. Mr Canning took the following apparatus and placed the end of the glass tube into a beaker of water. He then started to warm up the end of the flask with his hands. What might you have observed when he did this? Explain why? What would happen if he then cooled the glass flask?



10. We make 3 assumptions when dealing with Ideal Gases. State the 3 assumptions and explain why they are most valid at high temperatures and low pressure.?