

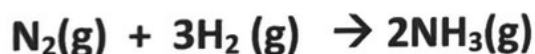
Gases Quiz

Name _____

I affirm that I will only use sources approved by my teacher and that all work on this assessment is entirely my own. I also affirm that I will not share the contents of this quiz with anyone.

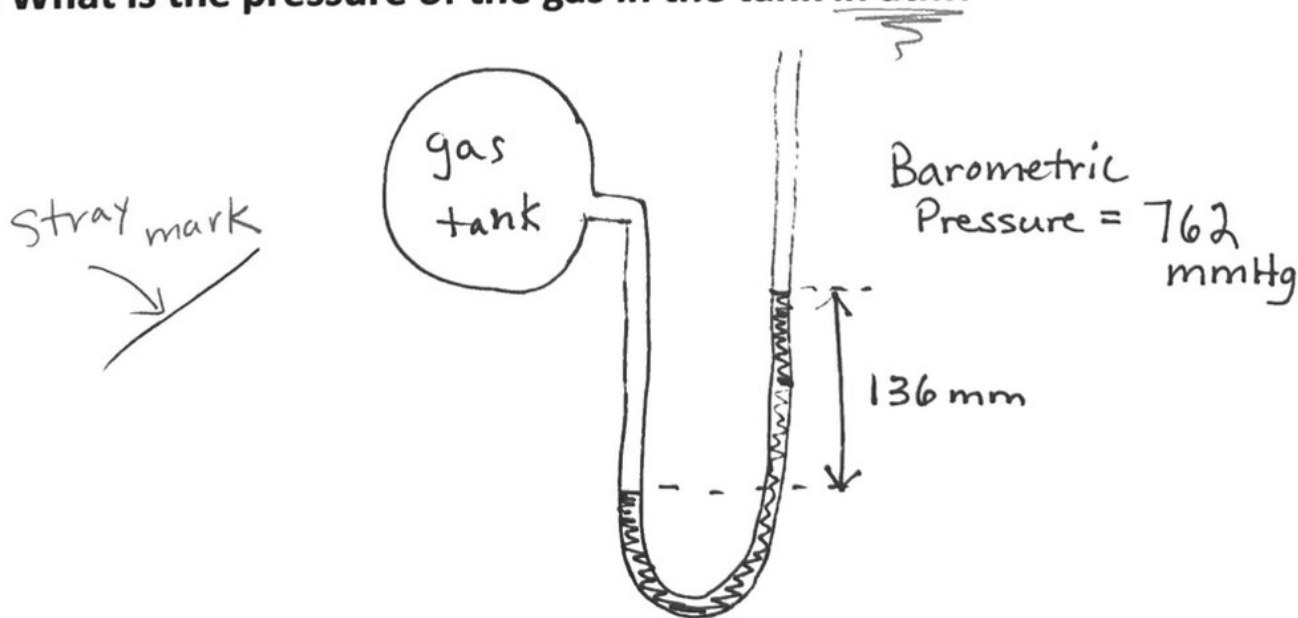
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1. Nitrogen and hydrogen react according to the equation



The reaction takes place in a 2.00 L container at a temperature of 115°C. If 1.50 g of nitrogen reacts completely with 0.400 g of hydrogen, what will be the total pressure in the container after the reaction is complete?

2. What is the pressure of the gas in the tank in atm?



3. The rate of effusion of oxygen gas is 2.42 times faster than that of an unknown gas. What is the molar mass of the unknown gas?

4. A 2.3 L sample of helium gas has a pressure of 3.5 atm when the temperature is 18.0°C. What would be the volume of the helium at STP?

oops!
5. A ~~10.0 L~~ tank holds 40.00 g of O₂ and 46.02 g of N₂. The temperature inside the tank is 30.0°C and the pressure is 967 mmHg.

A.) What is the mole fraction of the nitrogen?

B.) What is the partial pressure of the nitrogen?