

Name _____

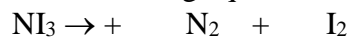
Honors Chemistry

You must use the **Combined Gas Law** on these Problems

1) If you collected 224 mL of nitrogen gas at 19° C and 120. kPa, what volume will it occupy at STP?

2) You calculate that you would get 1.32 L of H₂ gas at STP, however you only collect 1.12 L of gas, the pressure is 94 kPa, what is the temperature?

3) Balance the following equation



If you used 43 g of NI₃, what volume of **Nitrogen, N₂**, gas was produced at 529° C and a pressure of 1.12 atm?

You must use the **Ideal Gas Law** on these Problems

4) If you collected 124 mL of nitrogen gas at 19° C and 120. kPa, what volume will it occupy at STP?

5) You calculate that you would get 1.42 L of H₂ gas at STP, however you only collect 1.22 L of gas, the pressure is 94 kPa, what is the temperature?

6) Balance the following equation



If you have 19.5 g of Ammonium Carbonate and react it completely, what volume of carbon dioxide gas will you have at 55° C, and 784 torr?

7) Compare the rates of effusion of methane gas (CH₄) to Chlorine (Cl₂).