Critical Question 10

NAME _____

According to the following reaction:

$$3H_2 + N_2 \rightarrow 2NH_3$$

What is the partial pressure of NH_3 if one starts with 33 atm of H_2 and an excess of N_2 and the reaction goes to completion? The volume and temperature of the container is the same after the reaction as before.

ANS _____ atm

Critical Question 10

NAME _____

What volume of SF_6 can be produced at STP if one starts the following reaction with 45.0 L of F_2 at STP?

$$S_8 + 24F_2 \rightarrow 8SF_6$$

ANS _____ L

Critical Question 10

NAME _____

What volume of CO_2 can be produced at STP if one starts the following reaction with 39.0 L of O_2 at STP?

$$2CO + O_2 \rightarrow 2CO_2$$

ANS _____ L

Critical Question 10

NAME _____

What pressure of CO_2 can be produced in a constant volume container at constant temperature if one starts the following reaction with 23.0 atm of O_2?

$$2CO + O_2 \rightarrow 2CO_2$$

ANS _____ atm

Critical Question 10

NAME _____

What volume of CF_4 can be produced at STP if one starts the following reaction with 25.0 L of F_2 at STP?

$$2CO + 4F_2 \rightarrow 2CF_4 + O_2$$

ANS _____ L

Critical Question 10

NAME _____

What pressure of CCl_4 can be produced in a constant volume container at constant temperature if one starts the following reaction with 13.0 atm of Cl_2?

$$C_2H_4 + 6Cl_2 \rightarrow 2CCl_4 + 4HCl$$

ANS _____ atm

Critical Question 10

NAME _____

What volume of $H_2O(g)$ is produced when 27.0 L of O_2 reacts at constant pressure and temperature with an excess of H_2 according to the reaction:

$$2H_2 + O_2 \rightarrow 2H_2O \quad ?$$

_____ L

Critical Question 10

NAME _____

What pressure of $H_2(g)$ is required to react in precise stoichiometry with 27.0 atm of O_2 in a constant volume and constant temperature? The reaction is:

$$2H_2 + O_2 \rightarrow 2H_2O .$$

_____ atm