

#85

How many moles of nitrogen gas are contained in a 24.0 liter container at 25 °C and 1.02 atm?

- (A) 11.9 (B) 0.979 (C) 0.0821 (D) 1.00

#86

What is the pressure of a 1.28 mole gas sample in a 14.3 liter container at 25.0°C?

- (A) 0.184 atm (B) 0.457 atm
(C) 5.44 atm (D) 2.19 atm

#87

Which is the formula for lead (II) phosphate?

- (A) PbPO_4 (B) Pb_4PO_4
(C) $\text{Pb}_3(\text{PO}_4)_2$ (D) $\text{Pb}_2(\text{PO}_4)_3$

#88 A gas sample has a volume of 25.0 mL at 1.00 atm pressure. If the volume increases to 50.0 mL, the new pressure will be

- (A) 1.00 atm (B) 2.00 atm
(C) 0.250 atm (D) 0.500 atm

#89

Given the reaction at STP: $2 \text{KClO}_3 (\text{s}) \Rightarrow 2 \text{KCl} (\text{s}) + 3 \text{O}_2 (\text{g})$

What is the total number of liters of $\text{O}_2 (\text{g})$ produced from the decomposition of 0.500 moles of KClO_3 ?

- (A) 11.2 L (B) 44.8 L (C) 16.8 L (D) 67.2 L

#90

Given the reaction at STP: $2 \text{C}_2\text{H}_2 + 5 \text{O}_2 \Rightarrow 4 \text{CO}_2 + 2 \text{H}_2\text{O}$

What is the total number of liters of O_2 gas needed to completely react with 0.500 moles of C_2H_2 ?

- (A) 16.8 L (B) 28.0 L (C) 40.0 L (D) 56.0 L

#91

When 7.00 moles of gas A and 3.00 moles of gas B are combined (in a mixture), the total pressure exerted by the gas mixture is 760. mmHg. What is the partial pressure of gas A?

(A) 76.0 mmHg (B) 228 mmHg
(C) 532 mmHg (D) 760. mmHg

#92

A cylinder is filled with 2.00 moles of nitrogen, 3.00 moles of argon, and 5.00 moles of helium. If the gas mixture is at STP, what is the partial pressure of the argon?

(A) 760. torr (B) 380. torr (C) 228 torr (D) 152 torr

#93

Given the reaction: $2 \text{C}_2\text{H}_6 + 7 \text{O}_2 \rightarrow 4 \text{CO}_2 + 6 \text{H}_2\text{O}$
What is the total number of liters of CO_2 produced by the complete combustion of 1 liter of C_2H_6 ?

(A) 1 L (B) 2 L (C) 0.5 L (D) 4 L

#94

Given the same conditions of temperature & pressure, which noble gas will diffuse most rapidly?

(A) He (B) Ne (C) Ar (D) Kr

#95

Given the equation: $\text{LiClO}_3 \rightarrow \text{LiCl} + \text{O}_2$
When 48.7 grams of lithium chlorate are decomposed, how many liters of O_2 can be produced at STP?

(A) 8.05 (B) 18.1 (C) 25.9 (D) 73.1

#96

Given the equation: $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
How many grams of propane should be used to completely react with 30.5 liters of O_2 ?

(A) 6.10 (B) 8.41 (C) 12.0 (D) 153