

# PYQs on Laws of Chemical Combinations, Chemical Equations



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ACADEMY**

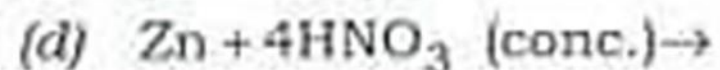
The proposition 'equal volumes of different gases contain equal numbers of molecules at the same temperature and pressure' is known as

- (a) Avogadro's hypothesis
- (b) Gay-Lussac's hypothesis
- (c) Planck's hypothesis
- (d) Kirchhoff's theory



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Which one of the following reactions will give NO (nitric oxide) gas as one of the products?







. Combination of one volume of nitrogen with three volumes of hydrogen produces

- (a) one volume of ammonia
- (b) two volumes of ammonia
- (c) three volumes of ammonia
- (d) one and a half volumes of ammonia



Ammonia ( $\text{NH}_3$ ) obtained from different sources always has same proportion of Nitrogen and Hydrogen. It proves the validity of law of:

- (a) Reciprocal proportion
- (b) Constant proportion
- (c) Multiple proportions
- (d) None of the above



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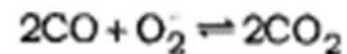
Equal volume of all gases, when measured at the same temperature and pressure, contain an equal number of particles. Who proposed the above law ?

- (a) Charles
- (b) Boyle
- (c) Avogadro
- (d) Lussac





Note the following balanced chemical equation :



Which one of the following statements is significant in relation to the above chemical equation?

- (a) One can add to a vessel only 2 mol of CO for each mol of  $\text{O}_2$  added
- (b) No matter how much of these two reagents are added to a vessel, 1 mol of  $\text{O}_2$  is consumed
- (c) When they react, CO reacts with  $\text{O}_2$  in a 2 : 1 mol ratio
- (d) When 2 mol of CO and 1 mol of  $\text{O}_2$  are placed in a vessel, they will react to give 1 mol of  $\text{CO}_2$