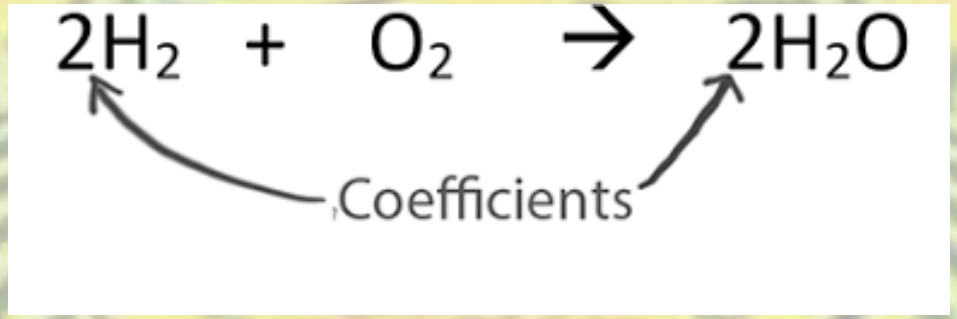
Mole concept and Stoichiometry

Stoichiometry, in chemistry, the determination of the proportions in which elements or compounds react with one another.



Q. How many gram of MgCO3 contains 24 g of O, (Mg = 24, C = 12, O = 16)

a. 42.2 g
b. 84.3
c. 120 g
d. 54 g

Q1. Consider the following reaction : $xAs_2S_3 + yO_2 \rightarrow zAs_2O_3 + wSO_2$

What is y (the coefficient for O_2) when this equation is balanced using whole number coefficients ?

a) 5

b) 7

c) 9

d) 11

Q2. In the reaction: $4NH_{3(g)} + 5O_{2(g)} \rightarrow 4NO_{(g)} + 6H_2O_{(l)}$

When 1 mole of ammonia and 1 mole of O_2 are made to react to completion :

a. All the oxygen will be consumed.

b. 1.0 mole of NO will be produced.

c. 1.0 mole of H_2O is produced.

d. All the ammonia will be consumed.