

Learnzy Academy

Worksheet: Atoms AND Molecules

1. What is molecular mass?
2. What name is given to the number 6.023×10^{23} ?
3. What term is used to represent the mass of 1 mole molecules of a substance?
4. Write the chemical formulae of the following: (a) Magnesium chloride (b) Calcium oxide (c) Copper nitrate (d) Aluminium chloride (e) Calcium carbonate
5. Define law of constant proportion.
6. Calculate formula unit mass of CaCl_2 .
7. How many atoms are present in H_2SO_4 ?
8. Define law of conservation of mass.
9. What are polyatomic ions? Give two examples.
10. Name a diatomic gas.
11. Calculate the molar mass of the following substances: (a) Ethyne, C_2H_2 (b) Sulphur molecule, S_8 (c) Phosphorus molecule, P_4 (Atomic mass of phosphorus = 31) (d) Hydrochloric acid, HCl (e) Nitric acid, HNO_3
12. Give one relevant reason why scientists chose $1/16$ of the mass of an atom of naturally occurring oxygen as the atomic mass unit.
13. What is the number of electrons in Mg atom and Mg^{2+} ion?
14. Who gave law of conservation of mass?
15. What is the atomicity of Argon?
16. Name the scientist who laid the foundation of chemical sciences. How?
17. What are polyatomic ions? Give examples.
18. Name the element which is used as the reference for atomic mass.
19. When 3.0 g of carbon is burnt in 8.00 g of oxygen, 11.00 g of carbon dioxide is produced. What mass of carbon dioxide will be formed when 3.00 g of carbon is burnt in 50.00 g of oxygen? Which law of chemical combination will govern your answer?
20. Give the names of the elements present in the following compounds: (a) Quick lime (b) Hydrogen bromide (c) Baking powder (d) Potassium sulphate