

Learnzy Academy

Worksheet: Atoms AND Molecules

1. How many atoms are present in H_2SO_4 ?
2. A 0.24 g sample of a compound of oxygen and boron was found by analysis to contain 0.096 g of boron and 0.144 g of oxygen. Calculate the percentage composition of the compound by weight.
3. Name the scientist who laid the foundation of chemical sciences. How?
4. What is the number of electrons in Mg atom and Mg^{2+} ion?
5. Give Latin names for sodium & mercury.
6. Which organisation approves the names of elements all over the world ? Write the symbol of gold.
7. Give one relevant reason why scientists chose $1/16$ of the mass of an atom of naturally occurring oxygen as the atomic mass unit.
8. Calculate formula unit mass of CaCl_2 .
9. How many atoms are there in exactly 12 g of carbon?
10. What are polyatomic ions? Give two examples.
11. Write the chemical formulae of the following: (a) Magnesium chloride (b) Calcium oxide (c) Copper nitrate (d) Aluminium chloride (e) Calcium carbonate
12. Define law of constant proportion.
13. What are polyatomic ions? Give examples.
14. Who gave law of conservation of mass?
15. What is molecular mass?
16. What term is used to represent the mass of 1 mole molecules of a substance?
17. What is the atomicity of Argon?
18. 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?
19. Define law of conservation of mass.
20. 'Atoms of most elements are not able to exist independently.' Name two atoms which exist as independent atoms.