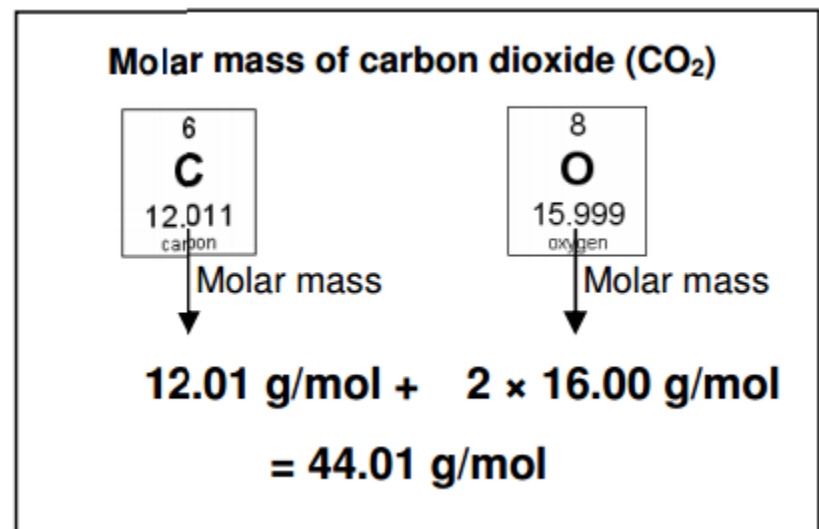


MOLAR MASS

The term mole is used in chemistry as a method for counting or grouping atoms. In the same way that a dozen is used to count eggs, the mole is used for counting very tiny particles such as atoms and molecules. The mass of an object is related to its weight. Masses are reported in grams. The mass of a mole of atoms is called the molar mass. A mole of carbon atoms is 12.0 grams while a mole of oxygen atoms is 16.0 grams



<u>Name</u>	<u>Symbol</u>	<u>Molar Mass</u>
carbon atom	C	12.01 g/mol
oxygen atom	O	16.00 g/mol
oxygen molecule	O ₂	32.00 g/mol
potassium nitrate	KNO ₃	101.11 g/mol

1. What is the molar mass of argon (Ar)?
2. Find the molar mass of gold (Au).
3. Hydrogen peroxide, H_2O_2 is used as an antiseptic. What is its molar mass?
4. What is the molar mass of calcium carbonate, CaCO_3 ?
5. Lye is the common name for sodium hydroxide, NaOH . What is its molar mass?
6. Perfluoroethylene, C_2F_4 is polymerized into Teflon, a chemical used to coat non-stick surfaces. What is its molar mass?
7. Find the molar mass of acetylene C_2H_2 , the gas used in welding torches.
8. Vinegar contains acetic acid, $\text{HC}_2\text{H}_3\text{O}_2$. What is the molar mass of this substance?
9. What is the molar mass of magnesium sulfate, MgSO_4 ?
10. Find the molar mass of phosphorus pentachloride, PCl_5 .
11. Bromine is diatomic. Find the molar mass of the bromine molecule, Br_2 .
12. What is the molar mass of phosphoric acid, H_3PO_4 ?