

Chem11 Molar Mass : W.S.-30

1) Find the molar mass (In grams/mole to one decimal place)

- a) NaCl _____ b) NH₃ _____
c) PbSO₄ _____ d) Al(OH)₃ _____
e) AgC₂H₃O₂ _____ f) C₄H₁₀ _____
g) (NH₄)₃P _____ h) C₁₂H₂₂O₁₁ _____
i) Zn₃(PO₄)₂ _____ j) Fe(SCN)₃ _____

2) Determine :

- a) The mass of 0.010 moles of CH₃OH.
- b) The number of moles in 4.70 g of silver sulfate.
- c) The number of molecules in 15.0 g of HNO₃.
- d) The number of atoms in 2.0 moles of C₁₂H₂₂O₁₁.
- e) The mass of a molecule of H₂O.
- f) The number of moles in 360 grams of sodium hydroxide.
- g) The number of molecules in 132 g of CO₂.
- h) The molar mass of a compound having 2.00×10^{23} molecules with a mass of 45.7g.

i) The mass of a molecule of NH_3 .

j) The number of atoms in 72.8 g of MgF_2 .

Answers : 1)a) 58.4, b) 17.0, c) 303.3, d) 78.0, e) 166.9, f) 58.1, g) 85.1, h) 342.3, i) 386.1, j) 230.1., 2)a) 0.32g, b) 0.0151, c) 1.43×10^{23} molecules, d) 90. moles = 5.4×10^{25} , e) 2.99×10^{-23} g, f) 9.0 moles = 5.4×10^{25} , g) 3.00 moles, h) 138g, i) 2.83×10^{-23} g, j) 2.11×10^{24} atoms.