

Chem11 Moles : Quiz-60

- 1)a) 1.00 mole of atoms = _____ atoms
- b) The Earth's population is 5.0 billion people. How many moles is this ?
(1 billion = 10^9) _____
- 2)a) Find the molar mass of $C_6H_5O_7$. _____ g.
- b) The percent of oxygen by mass in this compound = _____ .
- 3) The mass of 1.0 mole of zinc atoms is _____ .
- 4) The mass of 8.2×10^{-3} moles of sulfur atoms is _____ g.
- 5) The mass of 1.000 mole of iodine molecules is _____ g.
- 6) The mass of 1.2×10^9 moles of iodine molecules is _____ g.
- 7) The mass of 1.000 moles of phosphorus molecules P_4 is _____ g.
- 8) Find the number of moles in 5.3×10^{-2} grams of iron. _____ .
- 9) 8.3×10^{12} atoms = _____ moles.
- 10) Find the mass of one silver atom. _____ g.
- 11) Given the compound, cobalt (III) ferricyanide $CoFe(CN)_6$:
- a) Find the molar mass. _____ g.
- b) How many moles of carbon are in 20. moles of the substance.
_____ .
- c) What is the percentage of carbon by mass ? _____ %.
- 12) Find the mass of 7.4×10^8 atoms of gold. _____ g.
- 13) Find the number of moles in 2.4×10^{-8} grams of gold atoms. _____ .

Answers : 1)a) 6.02×10^{23} , b) 8.3×10^{-15} , 2)a) 189.1, b) 59.2 %, 3) 65.4, 4) 0.26, 5) 253.8, 6) 3.0×10^{11} , 7) 123.9, 8) 9.5×10^{-4} , 9)

1.4x10⁻¹¹, 10) 1.79x10⁻²², 11) 270.9, 120, 26.6 %, 12) 2.4x10⁻¹³,
13) 1.2x10⁻¹⁰.