

Exercise 1.12 – The moles concept

Q112-01 Calculate the number of molecules in 35.5g of chlorine gas

Q112-02 Calculate the number of atoms in 35.5g of chlorine gas

Q112-03 Find the total number of carbon atoms in 18g of glucose, $C_6H_{12}O_6$

Q112-04 Calculate the number of electrons in 23g of sodium

Q112-05 Calculate the number of protons in 5.6g of iron.

Q112-06 Calculate the number of ions in 5.85g of sodium chloride (Na= 23, Cl= 35.5)

Q112-07 Calculate the number of water molecules in 24.95g of hydrated copper sulphate crystals, formula $CuSO_4 \cdot 5H_2O$ (Cu=63.5, S=32, O=16, H=1)

Q112-08 Calculate the number of electrons lost when 5.5 grams of manganese 2+ ions are oxidised to manganate (VII) ions (Mn=55)

Q112-09 Calculate the number of sulphur molecules (S_8) in 32g of sulphur ($S_8=256$)

Q112-10 Calculate the total number of ions present in 45.3 g of aluminium ammonium sulphate, formula $Al(NH_4)(SO_4)_2 \cdot 12H_2O$ (Al=27, N=14, H=1, S=32, O=16)
