

Moles questions deconstructed

1 Work out the mass of 1 mole of each of the following:

NaOH	MgCl ₂
SO ₂	Na ₂ CO ₃
CaCO ₃	Cu(NO ₃) ₂

2 Determine the number of moles present in each of the following:

4.0 g of NaOH.....	0.95 g of MgCl ₂
0.32 g of SO ₂	0.106g of Na ₂ CO ₃
5.0 g of CaCO ₃	9.4g of Cu(NO ₃) ₂

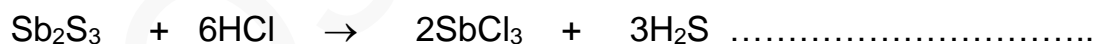
3 (a) How many moles of SO₃ are formed when 0.36 mol SO₂ react with excess O₂?



(b) How many moles of HCl react with 0.4 mol CaCO₃?



(c) How many moles of H₂S are formed when 0.4 moles of HCl react with excess Sb₂S₃?



(d) How many moles of iron are formed when 0.9 mol carbon monoxide react with excess iron(III) oxide?



(j) How many moles of hydrogen would be required to make 0.8 mol NH₃?



4 Work out the mass of each of the following:

0.3 mol NaOH	0.4 mol MgCl ₂
0.01 mol of SO ₂	0.10 mol of Na ₂ CO ₃
0.050 mol of CaCO ₃	0.25 mol of Cu(NO ₃) ₂