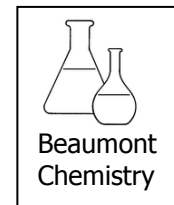


AQA AS Chemistry-Taster lesson Sheet 1 ANSWERS



Moles Calculations- Easy

- The Mass of 1 mole (in grams) is equal to the numerical value of the average atomic mass (get from periodic table).

- Calculate the number of moles in the following.
 - 32 g of O_2
 - 11.5 g of Na
 - 36 g of Mg
 - 71 g of Cl_2
- Calculate the mass of the following.
 - 2 mol of O_2
 - 0.5 mol of Mg
 - 2 mol of N_2
 - 1.5 mol of Ne
- Calculate the relative atomic mass of each of the following.
 - 0.1 mol of a metal has a mass of 2.3 g
 - 0.25 mol of a metal has a mass of 10 g
 - 0.6 mol of a metal has a mass of 14.4 g
- Calculate the relative molecular mass of each of the following.
 - 0.1 mol of a compound has a mass of 4.4 g
 - 0.1 mol of a compound has a mass of 3.2 g
 - 0.05 mol of a compound has a mass of 3.2 g



Moles Calculations- Not so easy!

For each of the following, formulate and balance equations first before calculating masses.

- What mass of iron (III) oxide would be made by reacting 50g of iron with oxygen?
- What mass of sulphur needs to be burnt in oxygen to produce 5g of sulphur dioxide?
- What mass of calcium oxide and carbon dioxide would be made by heating 2g of calcium carbonate?
- What mass of hydrogen would be produced by adding 10g of calcium to water?
- What mass of oxygen would need to be added to 0.5g of carbon to turn it all into carbon dioxide?

Answers to Questions

1 (a) 1

(b) 0.5

(c) 1.5

(d) 1

2 (a) 64 g

(b) 12 g

(c) 56 g

(d) 30 g

3 (a) 23

(b) 40

(c) 24

4 (a) 44

(b) 32

(c) 64

5 71.52g

6 2.496g

7 1.12g, 0.88g

8 0.5g

9 0.73g