Knowledge

1. 23

2. Add the mass numbers of all the atoms in a compound together

3. 16   101

4. It stays the same

5. Solid, liquid, gas, aqueous solution

6. 1000

7. Concentration = Mass/Volume

Application

1a) 111

1b) 36%   -   (40/111 x 100)

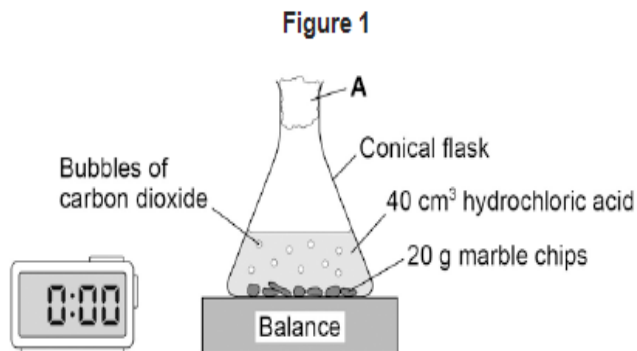1c) 36/100 x 50   =   <u>18g</u>

2. That no atoms are made or destroyed during a chemical reaction – mass remains the same

3. If a gas is given off or something reacts with a gas in the air (usually oxygen)

4. The mass of a substance dissolved in a certain volume of liquid

5. 300-168 = 132g

6.

Figure 1

a) $CaCO_{3 (s)} + 2\ HCl_{(aq)} \rightarrow CaCl_{2\ (aq)} + H_2O_{(l)} + CO_{2\ (g)}$

b) In equation

c) Stops acid spraying out of the flask (NOT the gases)

d) Uncertainty = range /2 range – 8.6-8.2 = 0.4

   0.4/2 = 0.2

   So uncertainty = 8.4g +/- 0.2g

7. Concentration = mass/volume

volume = 200/1000 – 0.2

35 / 0.2

175g/dm^3