**10 February 2021**

**Activity 2: Answers**

Please mark your work and do corrections before moving on to today’s work.

1. 278 kg to lb.

Conversion factor - **x 2,2046**

278 **x 2,2046** = 612,88 lb

2. 2,5 oz to g.

Conversion factor - **x 28,3495**

2,5 **x 28,3495** = 70,87 g

3. 50 g to kg.

Conversion factor - **÷ 1000**

50 **÷ 1000** =0,05 kg

4. 1 lb to oz.

Conversion factor - **x 16**

1 **x 16** = 16 oz

5. 980 lb to kg.

Conversion factor – **x 0,4536**

980 **x 0,4536** = 444,53 kg

**Topic: Conversions**

**Subtopic : The Imperial System**

**Metric system** – The system of units of measurement used in South Africa and most other countries.

Eg. Distance – Mm, cm, m, km

Mass - g, kg, tonnes

Capacity – ml l, kl

**Imperial system** - The system of units of measurement used in the United States and some other countries.

Eg. Distance - Mi, yd, ft, in

Mass - ST, lb, oz

Capacity - gal, pt, fl.oz

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Distance (length)** | | **Mass (weight)** | | **Capacity (liquid volume)** | |
| **Imperial** | **Metric** | **Imperial** | **Metric** | **Imperial** | **Metric** |
| 1 mile (mi) | 1,6 km | 1 short ton (ST) | 907 kg | 1 gallon (gal) | 3,8 l |
| 1 yard (yd) | 0,91 m | 1 pound (lb) | 453 g | 1 pint (pt) | 473 ml |
| 1 foot (ft) | 30 cm | 1 ounce (oz) | 28 g | 1 fluid ounce (fl oz) | 29,6 ml |
| 1 inch (in) | 2,54 cm |  |  |  |  |

Use **CROSS MULTIPLICATION** to do conversions between imperial and metric units.

**CROSS MULTIPLICATION:**

* Set out conversion factor as a ratio

On 1 line

* First unit of measurement on the left hand side
* Second unit of measurement on the right hand side

On the second line

* Fill in the value you are given under the same unit of measurement
* Write down x in the blank space
* Cross multiply and solve the equation

Example 1 – Convert **15 inches** to **cm**

* 1 inch = 2,54 cm

Inches: centimetres

1 : 2,54

15 : x

1 times x = 2,54 times 15

X = 2,54 x 15

X = 38,1 cm

Example 2 – Convert **20 cm** to **inches**

* 1 inch = 2,54 cm

Inches: centimetres

1 : 2,54

x : 20

2.54 times x = 1 times 20

2.54 x = 1 x 20

2.54 x = 20

2.54 2.54

X = 7.87 inches

**Activity 3**

Convert the following.

1. 30 ml 🡪 fl oz

2. 10 g 🡪 oz

3. 0,455 kg 🡪lb

4. 0,2 l 🡪fl oz