

Date: 16/03/2020

Capacity.

$$1 \text{ litre} = 1000 \text{ ml.}$$

$$1 \text{ ml} = \frac{1}{1000} \text{ l.}$$

Ex: 26.4.

Calculate the following and give the totals in ml.

1 a) $3 \text{ l} + 1500 \text{ ml}$

$$= 3 \times 1000 \text{ ml} + 1500 \text{ ml}$$

$$= 4500 \text{ ml.}$$

b $0.88 \text{ l} + 650 \text{ ml} = 0.88 \times 1000 \text{ ml} + 650 \text{ ml}$

$$= 880 \text{ ml} + 650 \text{ ml}$$

$$= 1530 \text{ ml.}$$

Solve c, d.

2 Calculate the following and give the total in litres.

a) $0.75 \text{ l} + 450 \text{ ml} = 0.75 \text{ l} + \frac{450}{1000} \text{ l}$

$$= 0.75 \text{ l} + 0.450 \text{ l}$$

$$= 1.2 \text{ l.}$$

Solve b, c, d.

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Area and Volume conversions

Area:-

$$\begin{aligned}1 \text{ m}^2 &= 1 \text{ m} \times 1 \text{ m} \\ &= 100 \text{ cm} \times 100 \text{ cm} \\ &= 10\,000 \text{ cm}^2\end{aligned}$$

$$\begin{aligned}1 \text{ km}^2 &= 1000 \text{ m} \times 1000 \text{ m} \\ &= 1\,000\,000 \text{ m}^2\end{aligned}$$

$$1 \text{ m}^2 = 10\,000 \text{ cm}^2$$

$$1 \text{ km}^2 = 1\,000\,000 \text{ m}^2$$

$$\begin{aligned}1 \text{ cm}^2 &= 10 \text{ mm} \times 10 \text{ mm} \\ &= 100 \text{ mm}^2\end{aligned}$$

$$1 \text{ cm}^2 = 100 \text{ mm}^2$$

Volume:

$$\begin{aligned}1 \text{ m}^3 &= 1 \text{ m} \times 1 \text{ m} \times 1 \text{ m} \\ &= 100 \text{ cm} \times 100 \text{ cm} \times 100 \text{ cm} \\ &= 1\,000\,000 \text{ cm}^3\end{aligned}$$

$$1 \text{ m}^3 = 1\,000\,000 \text{ cm}^3$$

$$\begin{aligned}1 \text{ cm}^3 &= 1 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} \\ &= 10 \text{ mm} \times 10 \text{ mm} \times 10 \text{ mm} \\ &= 1000 \text{ mm}^3\end{aligned}$$

$$1 \text{ cm}^3 = 1000 \text{ mm}^3$$

Ex: 26.5

1 Convert the following areas.

a) 10 m^2 to cm^2

(Big \rightarrow small multiply)

$$10 \text{ m}^2 = 10 \times 10\,000 \text{ cm}^2 \\ = \underline{\underline{100\,000 \text{ cm}^2}}$$

e) 8.3 cm^2 to mm^2

$$8.3 \text{ cm}^2 = 8.3 \times 100 \text{ mm}^2 \\ = \underline{\underline{830 \text{ mm}^2}}$$

Solve 1 all.

2) 500 cm^2 to m^2

(small to big \Rightarrow division)

$$500 \text{ cm}^2 = \frac{500}{10\,000} \text{ m}^2 \\ = 0.05 \text{ m}^2$$

Solve 2 all.

3 Convert the following volumes:

a) 2.5 m^3 to cm^3

$$2.5 \text{ m}^3 = 2.5 \times 1\,000\,000 \text{ cm}^3 \\ = 2\,500\,000 \text{ cm}^3$$

Solve 3 all.

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Q. Convert $150\,000\text{ cm}^3$ to m^3

$$\begin{aligned} 150\,000\text{ cm}^3 &= \frac{150\,000}{1\,000\,000}\text{ m}^3 \\ &= 0.15\text{ m}^3 \end{aligned}$$

Solve for all.