SI Measurements

Learing Outcome – Reading an SI Caliper.

Ex.1 (P. 10) Step. 1. ___ . ___ ___ (Blank spaces)

Step. 2. See the measurements given On the caliper.

Step. 3. Fill up the blank spaces.

2 . 2 3

For More Explanation – Watch the video on my website.

3 (p.16)

Learning Outcome – Conversion b/w SI units

Ex.2 (Your turn / 12.) a) 205 mm → cm

Sol. Step. 1. Write → $\frac{205\,mm}{1} \times \frac{\boxed{}\,cm}{\boxed{}\,mm}$

Step. 2. Use data sheet to look up for the conversion b/w 'mm' & 'cm'.

i.e. 10 mm = 1 cm

Step. 3. Fill up the blank boxes in step 1, using the above conversion.

i.e. $\frac{250\,mm}{1} \times \frac{\boxed{1}\,cm}{\boxed{10}\,mm} = \frac{250\,\cancel{mm}}{1} \times \frac{1\,cm}{10\,\cancel{mm}}$

$= \frac{250}{1} \times \frac{1\,cm}{10} = \frac{250 \times 1\,cm}{1 \times 10}$

$= \frac{250\,cm}{10} = 25\,cm$

Ex. 3 (Your turn d/12)

Sol. 2110 mm → cm → m

Step. 1. Here we have to convert 'mm' to 'm' via 'cm'. Therefore, we will draw the blank boxes as follows:

$$\frac{2110\ mm}{1} \times \frac{\boxed{}\ cm}{\boxed{}\ mm} \times \frac{\boxed{}\ m}{\boxed{}\ cm}$$

Step. 2. Conversions on data sheet:

10 mm = 1 cm and 100 cm = 1 cm

Step. 3. Fill up the blank boxes using above conversions.

i.e. $$\frac{2110\ mm}{1} \times \frac{\boxed{1}\ cm}{\boxed{10}\ mm} \times \frac{\boxed{1}\ m}{\boxed{100}\ cm}$$

$$= \frac{2110\ \cancel{mm}}{1} \times \frac{1\ \cancel{cm}}{10\ \cancel{mm}} \times \frac{1\ m}{100\ \cancel{cm}}$$

$$= \frac{2110}{1} \times \frac{1}{10} \times \frac{1\ m}{100}$$

$$= \frac{2110 \times 1 \times 1\ m}{1 \times 10 \times 100} = \frac{2110\ m}{1000} = 2.11\ m$$

For More info - Watch the video on the website.

Your turn (P. 12), 5, 6, 8 (P. 17)