Standard System of Units of Measurement

Standardising length measurement Scientists from all over the world have accepted a common standard units of measurement. The International System of Units (S.I unit) was set up as the convention for measurement worldwide.

Standard Units of Measurement are given below:

Metre (m), Centimetre (cm), Millimetre (mm), Kilometre (km) are some standard units of measurement.

Metre is the SI unit of measurement.

Conversion of Units:

1 km 1000 m 1m = 100cm 1cm = 10mm

Example 1: Nisha told her friend that the distance between her house and the playground is 1.5 km. Can you help her find the distance of her house and playground in centimetres?

Solution: Nisha told her friend that the distance between her house and the playground is 1.5 km

We know,

1km = 1000n

Therefore, 1.5 km = 1.5 * 1000 m = 1500 m

Now, we know 1m = 100cm

Therefore, 1500m * 100 = 150000cm

So, the distance between her house and playground in meters is 150000 cm.

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Example 2: Which unit we use to measure the distance between two cities? Kilometre or metre.

Solution: Kilometre is the correct way to measure the distance between two cities because kilometre is the bigger unit as compared to metre and the distance between two cities is also large.

A meter is the SI unit of length. It has 100 equal divisions called as centimetres.

To measure large distances we use kilometres. 1 Km = 1000 metres.

Scale must be in contact with the object being measured.

If scales are broken or the zero mark is not visible, it can lead to a zero error. Then measuring from a different mark must be carried out.

The correct reading will be obtained by subtracting the value from the full mark considered as the zero.

While measuring the eye must be exactly above the point where the measurement is to be taken, in order to avoid parallax errors.

Errors in Measurements: The Basics Parallax

Parallax is the displacement or the change in the apparent position of the object when viewed from two different points of views. This type of error while measuring is called as parallax error.

Standard System of Units of Measurement

How to Measure a Curved Line

Length of a curved line

Curved lengths cannot be measured using metre scales.

A string or a thread can be used to measure curved lines by creating a knot at one end and keeping that at the beginning, one can trace the curved line.

Then this length can be stretched out and measured with the help of a metre scale.

A measuring tape can be used to find lengths of curved objects. E.g. girth of a tree trunk, or length of a snake.

Standard Units



Measuring length of curved line