

Answer on Question #55626, Physics / Other

The maximum possible error in the measurement of length using the metre scale is -----

- A. 0.5
- B. 0.05
- C. 0.005
- D. 0.0005

Solution:

Accuracy depends on the instrument you are measuring with.

But as a general rule:

The degree of accuracy is half a unit each side of the unit of measure.

If we use a metre scale for measurement of length, it may have graduations at 1 mm division scale spacing or interval.

So if your ruler has 1mm divisions, then the error is 0.5mm.

$$0.5 \text{ mm} = 0.5 * 10^{-3} \text{ m} = 0.0005 \text{ m}$$

Answer: A. 0.5