

Exercise B

5. Unit of length: The SI unit of length is metre (m)

One multiples of metre is

$$1 \text{ decametre (dam)} = 10 \text{ m}$$

$$1 \text{ hm} = 100 \text{ m}$$

$$1 \text{ km} = 1000 \text{ m}$$

One submultiple is

$$1 \text{ m} = 100 \text{ cm}$$

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

6. a) $12 \text{ inch} = 1 \text{ ft}$

b) $1 \text{ ft} = 30.48 \text{ cm}$

c) $20 \text{ cm} = 0.2 \text{ m}$

d) $4.2 \text{ m} = 420 \text{ cm}$

e) $0.2 \text{ km} = \underline{200} \text{ m}$

f) $0.2 \frac{\text{cm}}{\text{mm}} = \underline{2} \text{ mm}$

g) $1 \text{ yard} = \underline{0.91} \text{ m}$

Q Explain stepwise how to take measurement of length of an object with a meter scale.

Ans- To measure the length of an object with a metre ruler, the ruler is placed with its markings close to the object. Then the zero mark on the ruler is made to ~~point~~ coincide with one end of the object. Now

the position of the other end of object is read on the ruler. This reading gives the length of the object.

Q The error of parallax?

Ans- When we measure length of an object with a meter ruler, the ruler has some thickness so while looking at the reading on the scale, we get different reading when the eyes kept at different positions

This is called error of parallax.

Q. Explain stepwise how to take measurement of length of an object with a measuring

Ans- To measure the length of a curved ~~lit~~ line MN with a measuring ~~tab~~ tape, the tape is spread along the length of the curved line. The end of the line A and B are read on the ~~tab~~ tape. The difference of these readings ~~gives~~ gives the length of the curved line.