

HW Define surface area.

Ans → The total surface occupied by an object is called its surface area.

Explain the units of area.

Ans → The S. I. unit of area is square metre.

One square meter is the area of a square of each side of 1 metre.

Some other units of area are:-

Decameter square: One

One square decameter is the area of a square of each side 1 decameter i.e. ~~10 metre~~

10 metre.

$$1 \text{ decametre}^2 = 10 \text{ metre} \times 10 \text{ metre} \\ = 100 \text{ meter}^2$$

Hectare:

One hectare is the area of a square of each side 100 metre.

$$1 \text{ hectare} = 100 \text{ metre} \times 100 \text{ metre} \\ = 10,000 \text{ meter}^2$$

Square kilometre:

One square kilometre is the area of a square of each side 1 kilometre.

$$1 \text{ km}^2 = 1 \text{ km} \times 1 \text{ km} \\ = 1,000 \text{ m} \times 1,000 \text{ m} = 10^6 \text{ m}^2$$

Square decimetre:

One square decimetre is the area of a square of each side 1 decimeter.

$$1 \text{ dm}^2 = 10 \text{ cm} \times 10 \text{ cm} = 100 \text{ cm}^2$$

Square centimetre:

One square centimetre is the area of a square ~~centimetre~~ of each side 1 centimetre.

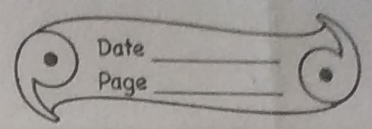
$$\begin{aligned} 1 \text{ cm}^2 &= \left(\frac{1}{100} \text{ m}\right) \times \left(\frac{1}{100} \text{ m}\right) = \frac{1}{10000} \\ &= 10^{-4} \text{ m}^2 \end{aligned}$$

$$1 \text{ yard} = \underline{0.91} \text{ metre}$$

$$1 \text{ foot}^2 = \underline{0.09290} \text{ metre}^2$$

$$1 \text{ acre} = \underline{4046.856} \text{ metre}^2$$

Test Yourself



A-3. Column A	Column B
a) Length of a housing plot	iv) Measuring tape
b) Breadth of a book	vi) Metre ruler
c) Mass of an apple	ii) Beam balance
d) Period of time for stud	i) Clock
e) Temperature of a body	iii) Thermometre
f) Surface area of a leaf	v) Graph paper

4. a) The symbol of degree celsius is:

Ans \rightarrow $^{\circ}\text{C}$

b) 10 mm is equal to:

Ans \rightarrow 1 cm

c) The amount of surface occupied by an object is called its:

Ans → area

d) A metre ruler is graduated in:

Ans → mm

e) A thermometer is graduated in:

Ans → °C