

CHAPTER 11

Areas

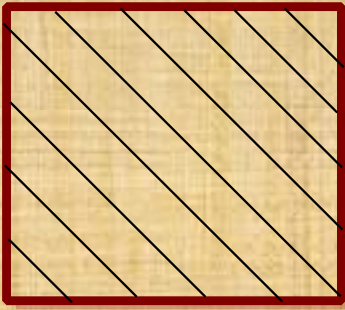
Unit area:

The unit area is the area of a square of a side of unit length.

Hence square centimeter (Or 1 cm^2) is the area of a square drawn on a side one centimeter in length.

Similarly, the terms square meter (1 m^2), square kilometer (1 km^2), square millimeter (1 mm^2) are to be understood in the same sense.

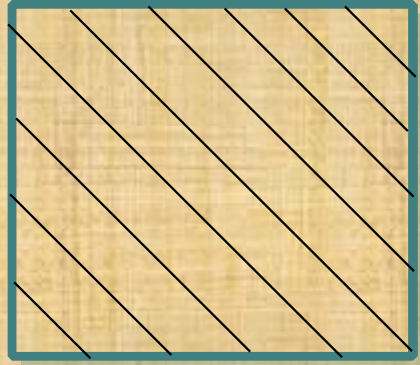




1 cm

1 cm

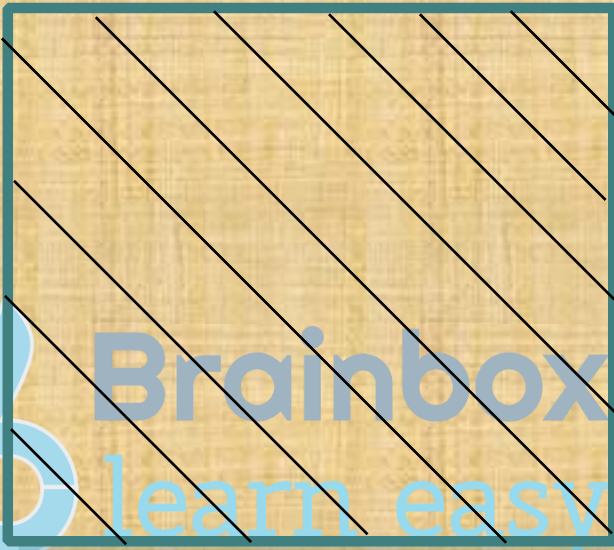
Area = 1 Sq. cm



1 m

1 m

Area = 1 Sq. m



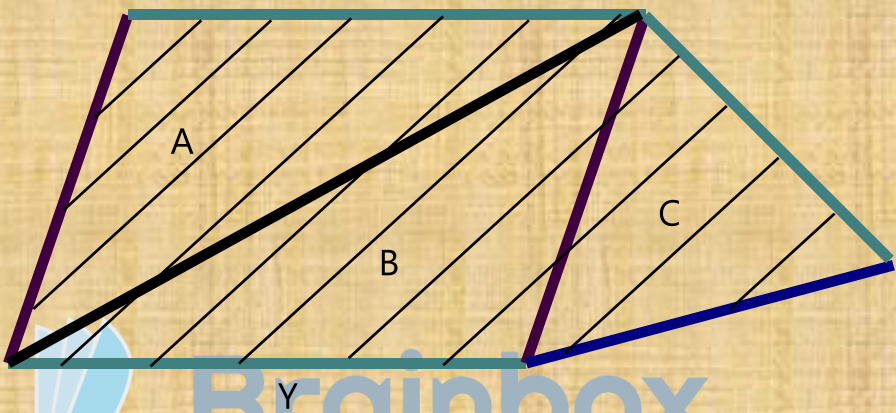
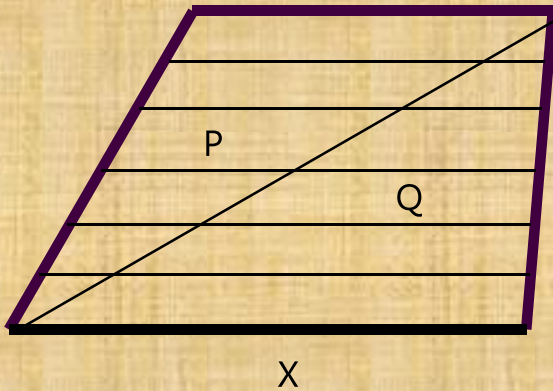
1 Km

1 Km

Area = 1 Sq. Km

Note:

We use area of a figure 'X' briefly as ar(x).



The area of a figure is a number (In some units) associated with the part of the plane enclosed by the figure with the following properties.

- The areas of two congruent figures are equal. If A and B are two congruent figures, then $\text{ar}(A) = \text{ar}(B)$.
- The area of a figure is equal to the sum of the areas of finite number of parts of it. If a planar region formed by a figure 'X' is made up of two non – overlapping planar regions formed by figures by P and Q then $\text{ar}(X) = \text{ar}(P) + \text{ar}(Q)$.