STRAND 3: MEASUREMENT

Area

Unit Conversion of Area

Meaning of of area

- The area of a plane shape is the amount of the surface enclosed within its boundaries.
- It is normally measured in square units. For example, a square of sides 5 cm has an area of 5 x 5 = 25 cm^2 • A square of sides 1m has an area of 1m^2, while a square of side 1km has an area of 1km^2

Conversion of units of area

$1\ m^2 = 1m \times 1m$
$= 100\ cm \times 100\ cm$
$= 10\ 000\ cm^2$

$1\ km^2 = 1\ km \times 1\ km$
$= 1\ 000\ m \times 1\ 000\ m$
$= 1\ 000\ 000\ m^2$

$1\ area = 10\ m \times 10\ m$
$= 100\ m^2$

$1\ hectare\ (ha) = 100\ Ares = 10\ 000\ m^2$

Example

Convert the following into the unit stated in bracket

2 m^2 (cm^2)

Solution

$2\ m^2 = 2m \times 2m$
$= 200\ cm \times 200\ cm$
$= 40\ 000\ cm^2$

Assignments

Convert each of the following into the units stated in the brackets:

(1). 6.8 ha (cm^2)