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**Area Conversion**

In units of area conversion we will learn how to convert the units. It’s very important to know the relation between the various units while solving the questions on area conversion.

**Relation between the various units of area**

   **Length Units                         Area Units**

  1 m = 100 cm     so,   1 m² = (100 × 100) cm² = 10000 cm²

  1 m = 10 dm       so,   1 m² = (10 × 10) dm² = 100 dm²

  1 cm = 10 mm     so,   1 cm² = (10 × 10) mm² = 100 m²

  1 km = 1000 m    so,   1 km² = (1000 × 1000) m² = 1000000 m²

  1 hm = 100 m      so,   1 hm² = (100 × 100) m² = 10000 m²
                                                                         = 1 hectare (ha)

**Notes:**

1 hectare = 100 ares

**Examples on area conversion:**

*Convert the following units:*

(a) 60 cm² in mm²

**Solution:**

60 cm² in mm²

1 cm = 10 mm

1 cm² = 100 mm²

Therefore, 60 cm² = 60 × 100 mm²

                           = 6000 mm²

(b) 3 hectares in m²

**Solution:**

3 hectares in m²

1 hectare = 10000 m²

Therefore, 3 hectares = 3 × 10000 m²

                                = 30000 m²

(c) 12000 m² in hectares

**Solution:**

12000 m² in hectares

10000 m² = 1 hectare

Therefore, 12000 m²    = 1/10000 × 12000 hectare

                                  = 12/10 hectare

                                  = 6/5 hectare

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