

## SQUARE MEASURES OR MEASURES OF SURFACE

### British Units

|                |   |   |
|----------------|---|---|
| 144 Sq. Inches | = | 1 sq. Foot                                    |
| 9 Sq. Feet     | = | 1 sq. Yard                                    |
| 304 Sq. Yards  | = | 1 Sq. rod, Pole or perch = 272 sq. ft.        |
| 40 sq Yards    | = | 1 rood = 1210 sq. Yds.                        |
| 484 Sq. Yards  | = | 1 Sq. Chain                                   |
| 4 Roods        | = | 4840 Sq. Yards = 160 Sq. rods = 10 sq. chains |
|                | = | 1 acre = 43.560 sq. ft.                       |
| 640 acres      | = | 1 sq. mile                                    |

An acre is the area of a square whose side is 208.70 ft. Longs.

### Metric Units

|                                    |                        |                     |
|------------------------------------|------------------------|---------------------|
| 1 Sq. Kilometre (km <sup>2</sup> ) | = 1,000,000 Sq. metres | = 100 hectares (ha) |
| 1 sq. Hectometre                   | = 10,000 „             | = 100 ares = 1 ha.  |
| 1 Sq. dekametre                    | = 100 „                | = 1 are             |
| 1 Sq. metre (m <sup>2</sup> )      | = 1 „                  | = 100 sq. dm.       |
| 1 „, decimeter (dm <sup>2</sup> )  | = 1/100 „              | = 100 sq. cm.       |
| 1 „, decimeter (dm <sup>2</sup> )  | = 1/10,000 „           | = 100 „, mm.        |

Sq. Metre = Centare or centiare; hectoare = sq. hectometer

Are = Sq. dekametre.

The sq. metre is the primary unit of ordinary surface or small areas. The are or Sq. Dekametre, hectare or sq. hectometer are the units of land measures.

### Conversion factor

|            |                               |
|------------|-------------------------------|
| 1 sq. inch | = 6.45 sq. centimeters        |
|            | = 645.2 sq. millimeter        |
| 1 sq. foot | = 929.0 sq centimeter         |
|            | = 0.093 sq. meters 1 sq. yard |
| 1 Sq. Yard | = 0.836 sq. metres or         |
|            | = 0.836 Contares              |
| 1 Acre     | = 4046.86 Sq. metres or       |
|            | = 40.47 ares or               |
|            | = 0.4047 hectare              |
| 1 Sq. mile | = 2.590 sq. kilometers        |
|            | = 259 hectares                |
|            | = 640 acres                   |

|                  |                     |
|------------------|---------------------|
| 1 Sq. Millimetre | = 0.00155 Sq. Ins.  |
| 1 sq. centimeter | = 0.155 Sq. ins.    |
| 1 sq. decimeter  | = 15.50 sq. ins.    |
| 1 sq. metre      | = 10.76 Sq. ft.     |
| 1 Centare        | = 1.196 Sq. yds.    |
| 1 Sq. dekametre  | = 119.6 Sq. Yds     |
| 1 Sq. Hectometer | = 11,959.85 Sq. Yds |
| 1 hectare        | = 2,471 acres       |
| 1 sq. kilometer  | = 247.10 acres      |
|                  | = 0.3861 sq. miles  |

### CUBIC MEASURES

#### British units

1728 cu. Ins. = 1 cu. Ft.

27 cu. Ft. = 1 cu. Yd.

1000 cu. Mm. = 1 cu.cm.

1000 cu. Cm. = 1 cu. Cm.

1000 cu. Dm. = 1 cu. Metre

#### Conversion Factors

|           |                   |                               |                  |
|-----------|-------------------|-------------------------------|------------------|
| 1 cu. In. | = 16387 cu. mm.   | 1 cu. em. (em <sup>3</sup> )  | = 0.061 cu. ins. |
|           | = 16.387 cu. cm.  | 1 cu. dm. (dm <sup>3</sup> )  | = 61.02 cu. ins. |
| 1 cu. ft. | = 28317 cu. cm.   |                               | = 0.035 cu. ft.  |
|           | = 28.317 cu. dm.  | 1 cu. metre (m <sup>3</sup> ) | = 35.315 cu. ft. |
|           | = 0.025 cu. metre |                               | = 1.308 cu. yds. |
| 1 cu. ya. | = 0.764 cu metre. |                               |                  |

|                      |                     |                     |
|----------------------|---------------------|---------------------|
| cm. 4 x 0.024 = in 4 | in4 x 41.623 = cm 4 | ft 4 x 0.00863 = m4 |
| cm.3 x 0.061 = in.3  | in3x 16.387 = cm3   | m4 x 115.862 = ft4  |
| cm. 2 x 0.155 = in.2 | in2 x 6.45 = cm2    | ft3 x 0.0283 = m3   |
| cm. x 0.3937 = in.   | in. x 2.54 = cm.    | m2 x 35.3147 = ft.3 |

### VOLUME OR CAPACITY

Apothecaries Fluid Measure – For medicine

60 minms = 1 ft. dram = 3.55 cu. centimeters or milliliters

8 ft. drams = 1 ft. ounce = 28.4 cu. centimeters or milliliters

|                   |                    |                |
|-------------------|--------------------|----------------|
| 1 teaspoonful     | = 1/8 ft. ounce    | = 1 ft. dram   |
| 1 dessertspoonful | = 2 ft. drams      |                |
| 1 tablespoonful   | = ½ ft. ounce      | = 4 ft. drams  |
| 1 winglass        | = 4 tablespoonfuls | = 2 ft. ounces |
| 1 teacup          | = 4 ft. ounces     |                |
| 1 tumblerful      | = 8 ft. ounce      |                |
| 1 glassful        | = 12 ft. ounce     |                |

1 cu. centimeter

Or = 0.035 ft. oz. br.

1 milliliter = 0.034 ft. oz. US

= 0.28 ft. drams

= 16.9 minims

1 cu. dm.

or = 1.76 pints

1 Litre = 0.88 quarts Br.

= 0.22 galls. Br.

The following approximate measures are usually taken:

1 minim = 0.06 cu. Cm.

1 teaspoonful = 4 cu.cm.

1 ½ minim = 0.1 cu. Cm.

1 teablespoonful

15 minim = 1.0 cu. Cm.

Or = 15 cu. Cm.

½ Ft. ounce

|                                 |   |                                    |
|---------------------------------|---|------------------------------------|
| Weight of 1 pint of water       | = | 1 $\frac{1}{4}$ Lb. or 20 Ozs. Avp |
| Weight of 1 ft. oz. of water    | = | 1 oz. avp                          |
| Weight of 1 ft. dram of water   | = | 54.69 grains                       |
| Weight of 1 cu. In.             | = | 252.5 grains                       |
| Weight of 1 cu. Cm. of water    | = | 15.43 grains                       |
| Weight of 1 gall. Imp. Of water | = | 10 lbs. avp.                       |
| Weight of 1 galls Us of water   | = | 8.33 lbs. avp.                     |