

(A) *First change the point so as to convert the given quantity into terms of the principal unit.*

(B) *Then change the point so as to convert the principal unit into the required unit, e.g.,*

1. Change 85'76 Km. to metres. Observing that 1000 m. = 1 Km., we move the decimal point three places to the right. *Ans.* 85760 m.

2. Change 8432165 cm. to Km. (100 cm. = 1 m. and 1000 m. = 1 Km.) Centimetres are changed to metres by moving the point two places to the left, and metres to kilometres by moving the point three places further to the left, making five places in all. *Ans.* 84'32165 Km.

VIII. F. To change from the English to the Metric System and *vice versa*.

1. Change 3'75 metres to yards, feet, inches.

1 metre = 39'37 inches.

3'75 metres = $(3'75 \times 39'37)$ inches = 147'6375 inches = 4 yds. 0 ft. 3'63 in.

This result is approximate only. Two places of decimals will generally give an answer sufficiently accurate.

2. Change 2 ac. 140 sq. rods to Ha.

1 Ha. = 2'471 ac. 2 ac. 140 sq. rods = $2\frac{140}{160}$ ac. = 2'875 ac. $2'875 \text{ ac.} \div 2'471 = 1'1635 \text{ Ha. (nearly).}$

IX. Mensuration.—In reviewing the mensuration of rectangular surfaces, keep clearly before the pupils' mind the fact that 9 square feet are not 3 linear feet \times 3 linear feet, but 3 times 3 square feet: 3 rows with 3 square feet in each row. *The multiplier is an abstract number.* (See Book II, p. 79, and Manual II, p. 31.)

In teaching solidity (length \times breadth \times thickness) the same method must be followed. If 27 inch cubes are built together in one block, the principle may be illustrated objectively. The rows, layers and number of