

(c) Express 3 pints as the fraction of 12 gallons.

Ans.  $\frac{3}{4}$  =  $\frac{1}{4}$ . (12 gal. = 96 pints.)

NOTE.—Reduce compound quantities to the same denomination.

(d) Express  $\frac{2}{3}$  acre as the fraction of a sq. rod.

$$\frac{\frac{2}{3} \text{ acre}}{1 \text{ sq. rod}} = \frac{\frac{2}{3} \times 160}{1} = \frac{400}{3}.$$

III. C. First find the answer as a common fraction and reduce this common fraction to a decimal.

NOTE.—When the decimal quotient does not terminate, it will be sufficiently accurate for all practical purposes to find the answer to five decimal places.

IV. See Teachers' Manual, Book II., p. 29.

The following case is new:—

3·125 of 10 yds. 2 ft. = 3·125 of 32 ft. = 100 feet.

4·045 of 1 cwt. 82 lbs. = 4·045 of 1·82 cwt. = 7 cwt. 36·19 lbs.

NOTE.—In compound quantities the lower denominations should be reduced to a decimal of the highest; or the whole quantity to the lowest denomination mentioned. Then apply the rule.

V. **Practice** is a convenient method of solving certain examples in multiplication of Compound Quantities by means of *aliquot parts*.

An *aliquot part* of a quantity is a part expressed by a fraction whose numerator is 1.

33 $\frac{1}{3}$  cents (which is  $\frac{1}{3}$  of \$1) is an *aliquot part* of \$1.

The method of practice is as follows:—

Find the cost of 1233 articles at 33 $\frac{1}{3}$  cents each.

We notice that 33 $\frac{1}{3}$  cents is  $\frac{1}{3}$  of \$1. Therefore the value of a number of articles at 33 $\frac{1}{3}$  cents each is  $\frac{1}{3}$  of their value at \$1 each. Hence the cost of 1233 articles at 33 $\frac{1}{3}$  cents each is  $\frac{1}{3}$  of \$1233 (the cost at \$1 each) or \$411.