

in measuring lines in inches and tenths, and in adding the measurements together. Subtraction of decimals within the limits prescribed.

6. *Measures.*—The following weights and measures to be known from actual use as far as possible, and applied to easy exercises:—

- (a) Weight: Ton, hundredweight, quarter, stone, pound, ounce.
- (b) Length: Mile, furlong, chain, link, yard, foot, inch.
- (c) Area: Acre, square chain, square yard, square foot, square inch.
- (d) Capacity: Gallon, quart, pint, bushel, as dry measure with approximate weight.
- (e) Time: Year, calendar month, week, day, hour, minute, second.

Reduction of weights and measures, as well as exercises in addition, subtraction, multiplication, and division as applied to weights to be restricted to three denominations, calculations and combinations that are not commonly used in real transactions being excluded.

(NOTE.—The application of the four rules to measures of length, area, capacity, and time are not included, except in practical exercises.)

7. *Mensuration.*—

- (a) Construction to measurement of the following geometrical figures: square, oblong, right-angled triangle, equilateral and isosceles triangle, circle.
- (b) Measurement of area of square, rectangle, and right-angled triangle, the length of each side being expressed in one denomination only, the area occasionally in two. The pupils must be able to demonstrate practically the method of calculating area.
- (c) Measurement of the perimeter of the straight-lined figures given in (a) above, and of the circumference of circular objects such as a penny.

STANDARD V (FORM I).

Prominence should be given to practical and mental arithmetic, the former to include individual practice in weighing and measuring and in the solving of problems based on the practical work. In no part of the subject should operations be introduced that have no counterpart in the actual affairs of life. Cumbersome computations and involved problems are not to be given. Short methods of calculations to be used wherever possible. All girls who are taught needlework may be exempted from the prescription in symbolical expression and practical geometry. An optional additional section on elementary mathematics has been added for the benefit of the more advanced pupils.

1. *Mechanical Operations.*—Further drill in tables and further oral exercises to secure quickness and accuracy in computation. Numeration and notation to millions. Tests of divisibility by 2 and 4, 3 and 9, 5 and 25, 10 and 100. Factorization involving only prime numbers to 11.

2. *Decimals.*—Practical illustrations of tenths and hundredths. Four operations in decimals to hundredths only. Multipliers and divisors to be integers only. Conversion of vulgar fractions (with denominators 2, 4, 5, 10, 20, 25, 50, 100) to decimals, and of decimals of one or two figures to vulgar fractions. Simple applications to concrete examples—*e.g.*, expression of shillings as decimals of £1, and *vice versa*.

3. *Fractions.*—The four operations, excluding complex fractional expressions in which more than one sign is used: *e.g.*, $7\frac{4}{5}$ of $\frac{10}{13}$ — $1\frac{7}{11}$. Cancelling to be freely used; denominators in general to be confined to numbers commonly occurring—*e.g.*, from 2 to 12, also 16, 20. The expression of one quantity as the fraction of another quantity. L.C.M. only so far as needed in the addition and subtraction of fractions. Prime factors of numbers to 30.

4. *Business Arithmetic.*—Finding the percentage values $2\frac{1}{2}$, 5, 10, $12\frac{1}{2}$, 25 per cent. of a certain quantity, and also within the same limits, finding the percentage one quantity is of another. Calculation of the value of quantities of a certain commodity; farthings to be included, but not along with shillings or pounds. The method of "practice" to be limited to money, and to not more than three easy aliquot parts. Calculation of wages at rates per hour. Method of making out and receipting tradesmen's bills and calculating discounts thereon, the rate of discount to be only $2\frac{1}{2}$, or 5, or 10 per cent., calculated on the pounds only.

5. *Simple Proportion.*—The solving of easy practical problems by the unitary or fractional method.