## ARITHMETIC.

Maximum marks per pupil = 5 ; marks entitling to a pass = 3.

<table>
<tr><td colspan="4"><em>Class A.</em></td><td colspan="4"><em>Class B.</em></td></tr>
<tr><td>5 pupils gain 5 marks</td><td>=</td><td>25</td><td></td><td>1 pupil gains 5 marks</td><td>=</td><td>5</td></tr>
<tr><td>4   "   4½   "</td><td>=</td><td>18</td><td></td><td>2 pupils gain 4   "</td><td>=</td><td>8</td></tr>
<tr><td>2   "   4   "</td><td>=</td><td>8</td><td></td><td>4   "   3½   "</td><td>=</td><td>14</td></tr>
<tr><td>2   "   3½   "</td><td>=</td><td>7</td><td></td><td>10   "   3   "</td><td>=</td><td>30</td></tr>
<tr><td>4   "   3   "</td><td>=</td><td>12</td><td></td><td>2   "   1 mark</td><td>=</td><td>2</td></tr>
<tr><td>2   "   1 mark</td><td>=</td><td>2</td><td></td><td>1 pupil gains 0   "</td><td>=</td><td>0</td></tr>
<tr><td>1 pupil gains 0   "</td><td>=</td><td>0</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td>Total marks gained</td><td>=</td><td>59</td></tr>
<tr><td>Total marks gained</td><td>=</td><td>72</td><td></td><td>Marks attainable</td><td>=</td><td>100</td></tr>
<tr><td>Marks attainable</td><td>=</td><td>100</td><td></td><td colspan="3">Mean efficiency mark = $\frac{59}{100}$ = 59 p.c. = fair.</td></tr>
</table>

Mean efficiency mark = $\frac{72}{100}$ = 72 p.c. = good.

From the point of view of standard passes the results are the same : in each class 17 pupils pass and 3 fail, and each is credited with a standard pass of 85 per cent. In other words, passes between the efficiency marks of which there is a difference of 13 per cent. are, in the minds of the public, ranked as equal. It is unnecessary to go through all the subjects in this way. Sufficient has been said to enable the lay mind to realise how coarse is the mere standard test of efficiency and how little store we Inspectors set by it ; but to make absolutely unmistakable the difference between the standard test and the test by which we estimate the condition of a school we give the standard results and the efficiency marks actually gained by one of our schools :—

Number of pupils examined in the standards ...     ...     =    48
Standard result : all pass    ...     ...     ...     ...     =    100 per cent.

Efficiency marks in subjects (percentages) :—

### Pass-subjects.

| Reading. | Spelling. | Writing. | Drawing. | Arithmetic. | Composition. | Geography. |
|---|---|---|---|---|---|---|
| 62 | 1 error per child = 80 | 67 | 77 | 63 | 58 | 87 |

### Class and Additional Subjects.

| Grammar. | History. | Science. | Mental Arith. | Recitation. | Drill. | Singing. | Needlework. | Comprehension. |
|---|---|---|---|---|---|---|---|---|
| 35 | 60 | 55 | 45 | 60 | 75 | 20 | 85 | 55 |

· Here we have a mean of 70⅘ per cent. of marks earned in the pass-subjects, and a mean of 54⅘ per cent. in the class and additional subjects, results that are in the one case good and in the other fair, the mean of the two being about 63 per cent. Hence the efficiency mark is to the standard mark as 63 to 100.

With us the standard pass is a mere by-product of the examination : we judge the quality of the teaching by the efficiency marks gained in the subjects. Our test is a laborious one to Inspectors ; but it is exact and fair. All the pupils taught by one teacher are regarded as constituting a working-unit ; they are credited with every mark they earn ; and their efficiency mark is determined by the ratio of the marks attained to the total attainable. There is no question of pass or of failure, all the pupils being regarded as contributing to the general result, the strong according to their strength and the weak according to theirs.

The following tables show for one school the detailed results from which the mean efficiency marks are derived. Such tables are made out for every school. The marks are reduced to percentages of attainable marks :—

### CLASS AND ADDITIONAL SUBJECTS.

| Standard. | Grammar. | History. | Geography | Object-lesson and Science. | Mental Arithmetic | Recitation. | Exercises and Drill. | Singing. | Needlework. | Comprehension. |
|---|---|---|---|---|---|---|---|---|---|---|
| I. ... | ... | ... | ... | 50 | ... | 60 | 75 | 50 | 70 | ... |
| II. ... | ... | ... | 50 | 50 | 62 | 70 | 75 | 50 | 50 | 27 |
| III. ... | 48 | 40 | ... | 50 | 36 | 75 | 75 | 50 | 65 | 75 |
| IV. ... | 50 | ... | ... | | 62 | 60 | 75 | 50 | 55 | 85 |
| V. ... | 57 | 75 | ... | 50 | 58 | 60 | 75 | 50 | 70 | 54 |
| VI. ... | ... | | | | 60 | 60 | 75 | 50 | 75 | |
| Mean ... | *52 | 58 | 50 | 50 | 56 | 64 | 75 | 50 | 61 | 60 |

* Key to efficiency marks : 40 to 49 per cent. = weak; 50 to 59 per cent. = fair ; 60 to 69 per cent. = satisfactory ; 70 to 79 per cent. = good ; 80 to 89 per cent. = very good; over 89 per cent. = excellent.