No. 3.

ARITHMETIC.

Time.—1½ *hours.*

(Maximum number of marks attainable 200.)

1. Add together $7\frac{5}{12}$, $\frac{8}{15}$, $206\frac{3}{4}$ and $\frac{54}{60}$.
2. Subtract $\frac{13}{23}\frac{9}{1}$ from $6\frac{7}{8}$.
3. Multiply $16\frac{4}{5}$ by $3\frac{6}{13}$.
4. Divide $3\frac{2}{5}$ by $7\frac{8}{11}$.
5. Add together 60.031, 9.0009 and 856.39107.
6. Subtract 31.928734 from 50.17328.
7. Multiply 30,24 by .0334.
8. Divide 293.46 by .438.
9. Express $\frac{1}{8} \times \frac{3}{32}$ of gallon in Decimals.
10. If 277.274 cub. inches equal one Imperial gallon. and 2218.192 cub. in. an Imperial bushel, how would you express the decimal proportion which 1 in. bears respectively to each.
11. Add 69 thousandths to 327 ten thousandths.
12. Divide 326450 by 15, 35, 45, and 55 in the shortest way attainable.
13. If a proof gallon of spirits (upon which the duty is 90c.) is sold, duty paid at $1.50, how much per cent is the price enhanced by the duty?
14. What is the fourth proportional to 3.05 : .003 : : 3.

No. 4.

MENSURATION.

Time—2 *Hours.*

(Maximum number of marks attainable, 175.)

1. What is the area of a right angle triangle, whose base and perpendicular are 12 ft. and 7 ft. respectively?
2. What would be the perpendicular height of a triangle whose base was 15 ft and two sides 14 and 13 ft. respectively.
3. Given a trapezoid, one of the parallel sides of which are 50 in., and the other 60, the perpendicular distance between them being 65 in., what is the area in inches?
4. How would you proceed to find the area of a trapezium and of a polygon respectively?