AN ROINN OIDEACHAIS
(Department of Education.)

BRAINNSE AN MHEADHON-OIDEACHAIS
(Secondary Education Branch).

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INTERMEDIATE CERTIFICATE EXAMINATION, 1940.

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## ELEMENTARY MATHEMATICS (Arithmetic).

### FOR GIRLS ONLY.

*MONDAY, 17th JUNE.*—MORNING, 10 A.M. TO 11.30 A.M.

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*Six* questions may be answered.

All questions carry equal marks.

Mathematical Tables may be obtained from the Superintendent.

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1. Simplify

$$\frac{19\frac{3}{4} + 7\frac{5}{6} - 24\frac{7}{8}}{2\frac{1}{2} \times 2\frac{1}{6}}.$$

2. Find the simple interest on £167 10s. for 6 years at $3\frac{3}{4}$ per cent. per annum.

3. Find the value of

(*a*) $567{\cdot}2 \times {\cdot}0125$ ;

(*b*) 1s. $11\frac{1}{2}$d. $\times$ 365 ;

(*c*) 98% of £38 19s. 2d.

4 Find the square root of 13, correct to three places of decimals.

5. A farm of 18 acres 3 roods 16 perches was sold for £377. What was the price per acre ?

6. If £1=176 francs and 1 metre=1·09 yards, find, to the nearest penny, the Irish price per yard which corresponds to 20 francs per metre.

Find also, to the nearest franc, the French price per metre which corresponds to 1s. 6d. per yard.

7. The diameter of a circle is measured and found to be 3·48 inches approximately. Calculate the length of the circumference and the area of the circle.

8. The length of a rectangular field is twice its breath. The area of the field is one acre. Find, in yards, the length of the diagonal.

9. The charge made for a private telephone is £1 5s. per quarter plus a penny a call. The cost of using a public telephone is twopence per call. Draw two graphs on the same axes showing the cost for any number of calls up to 500 per quarter in both cases. How many calls per quarter cost the same by private telephone as by public telephone?