AN ROINN OIDEACHAIS
(Department of Education).

BRAINNSE AN MHEADHON-OIDEACHAIS
(Secondary Education Branch).

INTERMEDIATE CERTIFICATE EXAMINATION, 1936.

ELEMENTARY MATHEMATICS (Arithmetic).
FOR GIRLS ONLY.

FRIDAY, 19*th* *JUNE.*—MORNING, 10 A.M. TO 12 NOON.

Six questions may be answered.

Mathematical Tables may be obtained from the Superintendent.

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1. Find the cost of 29 tons 15 cwt. of coal at £2 8s. per ton. How much coal would be obtained for £17 14s. at the same rate?

   [16 marks.]

2. Find the difference between $12\frac{1}{2}\%$ of £134 5s. and 5% of £67 2s. 6d.

   What percentage of £100 is this difference?

   [16 marks.]

3. Calculate the values of (i) $\frac{97}{56}$ and (ii) $\sqrt{3}$, correct to 6 decimal places in each case, and express the difference between these values as a percentage of $\sqrt{3}$, correct to one significant figure.

   [16 marks.]

4. £21 19s. 10d. is the amount due for rates at 15s. $8\frac{1}{2}$d. in the £1 on the valuation of a house. What is the valuation?

   If the valuation is equal to $2\frac{1}{2}\%$ of the price of the house, what is the price of the house?

   [16 marks.]

5. The side of a square field is 68 yards long and the area of another square field is 3,500 square metres. Find the difference of their areas (i) in square yards, (ii) in square metres.

   [16 marks.]

6. The Post Office Savings Bank allows $2\frac{1}{2}\%$ p.a., interest on money deposited, the interest being calculated for each whole month from the 1st of the month succeeding the date of deposit. If a depositor lodges £50 on the 10th February, £24 on the 20th May, and £10 on the 5th September, how much will be credited to his account on the 1st January following ?

[17 marks.]

7. Find graphically what sum of money at simple interest will amount to £650 at the end of one year and to £875 at the end of 10 years. Use your graph to find how many years it will take for the sum to reach £1,000.

[17 marks.]

8. Find the greatest length which is a common measure of 15 feet; 11 ft. 8 ins. and 1 ft. 3 ins.

If a floor measures 15 ft. by 11 ft. 8 ins. and it is desired to cover a border 1 ft. 3 ins. deep with square tiles as big as possible, how many tiles will be required ?

[17 marks.]

9. Use the statistics given in the following table to find

    (i) the number of persons per square mile in each of the countries named,

    (ii) the average number per square mile in the countries taken as a whole.

Answer to the nearest unit in each case.

Country			Area (sq. miles)	Population (in thousands)
Saorstát Eireann	..	..	26,600	2,974
Northern Ireland	..	..	5,400	1,256
England and Wales	..	..	58,600	40,090
Scotland	..	..	30,500	4,843
Italy ..	..	..	119,700	41,699
Germany	..	..	181,100	64,776
Bulgaria	..	..	39,800	6,067

[17 marks.]