AN ROINN OIDEACHAIS
(Department of Education.)

INTERMEDIATE CERTIFICATE EXAMINATION, 1942.

ELEMENTARY MATHEMATICS (Arithmetic).
FOR GIRLS ONLY.

TUESDAY, 16th JUNE.—MORNING, 10 TO 11.30.

Six questions may be answered.

All questions carry equal marks.

Mathematical Tables may be obtained from the Superintendent.

1. Find, correct to 2 decimal places, the value of

$$\frac{16{\cdot}8 \times 0{\cdot}096}{16{\cdot}8 + 0{\cdot}096}.$$

2. Find (*a*) the Greatest Common Measure, (*b*) the Least Common Multiple of the numbers :

315, 495, 570.

3. Find, to the nearest penny, the simple interest on £890 for 146 days at $1\frac{1}{2}\%$ per annum.

4. Find, to two decimal places, the square root of 292.

5. In a mixed school of 240 pupils, 15% were senior pupils and the rest were junior pupils. Seven of the senior pupils were boys and two-thirds of the junior pupils were girls. Find the percentage of girls in the whole school.

6. Goods purchased at £8 15s. per ton were sold at the rate of $1\frac{1}{2}$d. per lb. : find the percentage profit.

7. Express

(i) 100 yards in metres (to the nearest metre) ;

(ii) 100 square yards in square metres (to the nearest sq. metre).

[1 inch=2·54 cm.]

8. A cylindrical stone is $2\frac{1}{2}$ feet in diameter and 24 feet high. Calculate the volume of the stone in cubic feet.

If a cubic foot of the stone weighs 152 lbs., what is the weight of the whole stone in tons ?

9. Draw a graph to illustrate the following :

A and B are two houses 10 miles apart. A girl left A at 3 p.m. and cycled to B at 8 miles per hour. She remained at B until 5 p.m. and then returned to A at 9 miles per hour.

Find from the graph the times at which she was half-way between A and B.