AN ROINN OIDEACHAIS

(Department of Education).

INTERMEDIATE CERTIFICATE EXAMINATION, 1958.

ELEMENTARY MATHEMATICS (Arithmetic).

FOR GIRLS ONLY.

TUESDAY, 10*th JUNE.*—Morning, 10 to 12.

All questions to be answered.

All questions carry equal marks.

1. (a) Multiply 6530 by 0·0809 and give your answer correct to one place of decimals.

    (b) Express $\dfrac{12}{156}$ as a decimal, correct to three places.

    (c) How many whole numbers between 0 and 5,000 are divisible by 7 ?

2. (a) How many packets of sugar, each containing a quarter of a stone, could be made up from a sack of sugar containing 2 cwts. 2 qrs. 3 lbs., and how many pounds of sugar would be left over ?

    (b) On a journey of 805 miles 23 gallons of petrol are consumed. If petrol costs 5s. per gallon, find the cost, to the nearest penny, of the petrol for a journey of 325 miles at the same rate.

3. (a) Calculate the simple interest on £450 for 5 years at $3\frac{1}{4}\%$ per annum.

    (b) What sum of money would have to be invested at $3\frac{1}{4}\%$ per annum to obtain an annual income of £78 ?

4. The area of a square field is 4 acres 3 roods. Find in yards, correct to one place of decimals, the length of one side of the field.

5. A shopkeeper buys 150 frocks at £3 6s. 8d. each and marks them for sale at a price which will give him a profit of 30% of the cost price. Find the total cost of the frocks and, also, the marked price of a frock.
After selling half of the frocks at the marked price, he sells the remainder at the rate of three frocks for the marked price of two. Express his total profit as a percentage of the total cost.

6. The rain which falls on a horizontal rectangular roof 15 yards long and 12 yards wide is drained off into a cylindrical barrel having an internal diameter of 3 feet. Find (i) how many gallons of water enter the barrel and (ii) how many inches the level of the water in the barrel rises as a result of a rainfall of one-tenth of an inch, giving your answer correct to one place of decimals in each case.

[1 cubic foot=6·228 gallons.]