

AN ROINN OIDEACHAIS

(Department of Education).

INTERMEDIATE CERTIFICATE EXAMINATION, 1957.

ELEMENTARY MATHEMATICS (Arithmetic).

FOR GIRLS ONLY.

TUESDAY, 4th JUNE.—MORNING, 10 TO 12.

All questions to be answered.

All questions carry equal marks.

1. Find the cost of:—

(a) 480 articles at 9s. 11½d. each,

(b) 40 gallons, 3 quarts at £12 8s. per gallon.

2. (a) Express 3s. 6d. (i) as a fraction of £1, (ii) as a decimal of £1, (iii) as a percentage of £1.

(b) Eggs are bought at 6s. 3d. per score (twenty) and sold at 5s. 3d. per dozen. Find the percentage profit.

3. (a) Find, correct to one place of decimals, the value of

$$\frac{0.17 \times 30.6}{1.58}$$

(b) A girl who receives a certain amount of pocket money each week saves one-third of it. If at the end of 52 weeks her savings amount to £10 8s., how much pocket money does she receive each week?

4. The following is a recipe for making a cake:—

3½ lb. of flour at 4s. 4d. per stone,

8 oz. of sugar at 7d. per pound,

1¾ pints of milk at 3s. 4d. per gallon,

3 eggs at 5s. 9d. per dozen,

8 oz. of butter at 3s. 9d. per pound,

¾ oz. of yeast at 2d. per ounce.

Find the total cost of the ingredients in the recipe.

5. A cylindrical lawn-roller is 2 feet wide and has a diameter of 2 feet, 3 inches. When the roller has made 2,640 revolutions, find (a) the distance, in miles, it has travelled and (b) the area, in acres, which it has rolled, giving your answer correct to one place of decimals in each case.

6. Two house-holders, A and B, pay for the electricity they use every two-monthly period as follows :—A pays at the rate of 1·5d. per unit plus a fixed charge of £1 19s. and B pays at the rate of 5·4d. per unit but does not pay any fixed charge. During a certain two-monthly period each of them used 140 units. Find what each paid.

In another two-monthly period A used the same number of units as B and both paid the same amount at the end of the period. Find graphically, or otherwise, the number of units each used.