

AN ROINN OIDEACHAIS

(Department of Education).

INTERMEDIATE CERTIFICATE EXAMINATION, 1949.

ELEMENTARY MATHEMATICS (Arithmetic).

FOR GIRLS ONLY.

WEDNESDAY, 8th JUNE.—MORNING, 10 TO 12.

Six questions may be answered.

All questions carry equal marks.

1. Simplify : (a) $\frac{23}{36} - \frac{5}{6} \div 1\frac{1}{3} + \frac{17}{18} \times \frac{7}{68}$;

(b) $\frac{1.65 \times 0.36}{.01 + 0.0098}$.

2. Find the cost of 15 tons 7 cwts. 2 qrs. at £5 6s. 8d. per ton.

3. After giving half his money to B and one-third of the remainder to C, A has 4s. 8d. left. How much money had A at first ?

What percentage of A's money did B and C get, respectively ?

4. Assuming that one metre = 39.37 inches, find (a) how many miles are equivalent to 100 kilometres, (b) how many kilometres are equivalent to 10 miles. Give your result correct to *one* decimal place in each case.

Or,

4. Find the value of $\sqrt{114.63}$, correct to *two* places of decimals.

5. Kathleen, Mary and Ita are 10, 13 and $14\frac{1}{2}$ years of age, respectively. £3 2s. 6d. is divided amongst them so that each girl's share is proportional to her age. How much does each girl get ?

[P.T.O.]

6. The following table gives the approximate time it takes to roast a given weight of beef :

| | | | | | | |
|--------------------|----|----|----|-----|-----|-----|
| Weight in lbs. .. | 1 | 2 | 3 | 4 | 5 | 6 |
| Time in minutes .. | 40 | 60 | 80 | 100 | 120 | 140 |

Draw a graph showing the relation between weight in lbs. and time in minutes and from your graph read off :

- (i) the weight of beef that would be roasted in $1\frac{3}{4}$ hours,
- (ii) the time it would take to roast $4\frac{3}{4}$ lbs. of beef.

7. ABC is a triangle right-angled at C, having $AC=CB$ and AB 4 inches long. On AB as diameter a semicircle ADB is described on the side of AB remote from C. Find the area of the figure ADBC, correct to the nearest tenth of a square inch.

Or,

7. A cylindrical pipe, 5 feet long and of external diameter 9 inches, is made of metal $\frac{1}{2}$ inch thick. If one cubic foot of the metal weighs 448 lbs., what is the weight of the pipe? Give your answer correct to the nearest pound. (Note : Take $\pi=3\frac{1}{7}$).