AN ROINN OIDREACHAIS

INTERMEDIATE CERTIFICATE EXAMINATION, 1963,

ELEMENTARY MATHEMATICS (Arithmetic).

FOR GIRLS ONLY.

THURSDAY, 6th JUNE — Morning, 10 to 12.

All questions to be answered.
All questions carry equal marks.

1. Find the cost of 7 tons 4 cwt. at £8 16s. 8d. per ton.

2. Simplify:— (i) \( \frac{3\frac{1}{3} - 2\frac{7}{8}}{3\frac{2}{3} + 1\frac{1}{8}} \), (ii) \( \frac{4\frac{1}{3} \times 3\frac{1}{2}}{7\frac{2}{3} + 1\frac{1}{2}} \)

3. Find the simple interest on £545 for ten years at 6\% per annum. What sum of money invested at 6\% per annum simple interest would amount to £368 after ten years?

4. Find the cost of
   (a) 7 lbs. of sugar at 7\frac{1}{4}d. per lb.,
   (b) \( \frac{3}{2} \) lbs. of tea at 7s. 6d. per lb.,
   (c) 1\frac{1}{2} gallons of milk at 5\frac{3}{4}d. per pint.,
   (d) 2\frac{1}{2} stones of potatoes at 19s. 4d. per cwt.
Find, also, the total cost of these items.

5. (a) An athlete runs one mile in four minutes. Express his speed
    (i) in miles per hour, (ii) in feet per second.
    (b) Express (i) 220 yards as a decimal of 5 miles, (ii) 54 seconds as a
decimal of one hour.

6. Find the square root of (i) 44400, (ii) 0.0441.
A square has an area of 70 square centimetres. Find, correct to two places
of decimals, the length of a side in centimetres.

7. (i) A man bought an article for £80 and sold it for £100. What percentage
    profit did he make?
    (ii) An article which cost 16s. was sold at a profit of 8\frac{1}{2}\% . Find the
    selling price.
    (iii) When a man sold an article for £59 10s. 0d. he lost 15\% on it.
    What did it cost him?

8. A solid cylinder, five inches in height, has a diameter of four inches.
    Find its volume in cubic inches, correct to the nearest cubic inch.
    If the cylinder is made of iron and if a cubic foot of iron weighs 450 lbs.,
    find the weight of the cylinder in pounds, correct to the nearest pound.