

INTERMEDIATE CERTIFICATE EXAMINATION, 1966

ELEMENTARY MATHEMATICS (Arithmetic)

FOR GIRLS ONLY

WEDNESDAY, 8th JUNE - Morning, 10 to 12

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

1. (a) Simplify $\frac{1}{2}\left(\frac{6}{7} + \frac{2}{3}\right) \times \frac{3}{4}\left(1\frac{1}{2} - \frac{4}{5}\right)$.

(b) Express 8 metres 16 cm. as a decimal of 12 metres.

2. Find the cost of 9 tons 3 cwt. 4 st. at £7 10s. 0d. a ton.

3. Find the total cost of the following articles:

- 4 dozen eggs @ 5s. 3d. per dozen
- 1 cwt. of butter @ 4s. 3d. per pound
- 1½ stone of sugar @ 9d. per pound
- 20 gallons of milk @ 6d. per pint.

If a discount of 2½% is allowed, find to the nearest penny, the actual amount paid.

4. A shopkeeper makes a profit of 20% when he sells an article at 30 shillings. What did he pay for the article? What selling price would give him a profit of 30%?

5. A garden, in the form of a square, consists of a square central plot surrounded by a path 3 ft. wide. If the total area of the garden is 961 sq. ft., find the area of the central plot.

6. A man received £10 5s. 0d. as simple interest for one year from money which he had invested at 2½% per annum. How much had he invested? If the rate were 3% per annum, how much interest would he receive?

7. Find the total cost of covering a kitchen floor, 12 ft. wide and 14 ft. long, with tiles. Each tile is 6 ins. long and 4 ins. wide and a tin of adhesive is required for every 48 tiles. The tiles cost 7d. each and the adhesive costs 1s. a tin.

8. A cylindrical tank has the following internal measurements: radius 3½ ft., height 20 ft. Find the volume of the tank and the number of gallons it contains when half full.

(Take 1 cubic foot = 6.2 gallons and $\pi = 3\frac{1}{7}$)