

Ratio and Proportion Aptitude Questions and Answers Pdf

1. A person spends Rs. 8100 in buying some tables at Rs. 1200 each and some chairs at Rs. 300 each. The ratio of the number of chairs to that of tables when the maximum possible number of tables is purchased, is

a. 1 : 2

b. 1 : 4

c. 2 : 1

d. 5 : 7

Ans: A

Maximum possible number of tables = 6.

[$\because 1200 \times 6 = 7200$].

$$\text{Number of chairs purchased} = \frac{8100 - 7200}{300} = \frac{900}{300} = 3.$$

Hence, required ratio = 3 : 6 = 1 : 2.

2. The ratio of boys and girls in a club is 3 : 2. Which of the following could be the actual number of members?

(A) 16

(B) 20

(C) 25

(D) 27

Ans: C

The total number of members must be a multiple of the sum of the ratio terms $3 + 2 = 5$ and 25 is a multiple of 5.

3. A jar contains black and white marbles. If there are ten marbles in the jar, then which of the following could not be the ratio of black to white marbles?

- a. 1 : 4
- b. 1 : 10
- c. 7 : 3
- d. 9 : 1

Ans: B

Since the number of black and white marbles are whole numbers, so the sum of the terms of the ratio must be a factor of 10.

$1 + 4 = 5$, $7 + 3 = 10$ and $9 + 1 = 10$, but $1 + 10 = 11$, which is not a factor of 10.

4. The mean proportional between 234 and 104 is

- a. 12
- b. 39
- c. 54

d. None of these

Ans: D

$$\begin{aligned}\text{Required mean proportional} &= \sqrt{234 \times 104} \\ &= \sqrt{13 \times 9 \times 2 \times 13 \times 8} = 13 \times 3 \times 4 = 156.\end{aligned}$$

5. Of 132 examinees of a certain school, the ratio of successful to unsuccessful candidates is 9 : 2. If 4 more students passed, what would have been the ratio of successful to unsuccessful students?

- a. 25 : 4
- b. 4 : 25

c. 28 : 5

d. 3 : 28

Ans: C

$$\text{Number of successful candidates} = \left(\frac{9}{11} \times 132 \right) = 108.$$

$$\text{Number of unsuccessful candidates} = \left(\frac{2}{11} \times 132 \right) = 24.$$

$$\therefore \text{Required ratio} = (108 + 4) : (24 - 4) = 112 : 20 = 28 : 5.$$

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