

## Ratio and Proportion

1. Vessel A contains 36 litres of mixture of milk and water and vessel B contains 80 litres of mixture of milk and water. The ratio of milk to water in vessel A is 3:2 and the ratio of milk to water in the vessel B is 7:3, if 18 litres of mixture is taken out from vessel B and added to vessel a, how many litres of water will be there in vessel A?

- a. 21.4      b. 19.8      c. 17.6      d. 20.4

2. The sum of the three consecutive odd numbers is 285. What is the ratio of the smallest and largest numbers respectively?

- a. 97:95      b. 93:95      c. 95:93      d. 93:97

3. A man has Rs 972 in the denominations of one- rupee, two –rupee , five-rupee and ten-rupee, if there are equal no. of coins each number of denomination, what is the total number of coins that he has ?

- a. 216      b. 232      c. 224      d. 236

4. The average age of boys in the class is twice the number of girls in the class. The ratio of boys and girls in the class of 50 is 4:1. What is the total ages ( in years ) of the boys in the classes ?

- a. 2000      b. 2500      c. 800      d. 400

5. Ashish has Rs. 10notes and Rs. 20 notesonly. If the number of Rs.20 notes istwice the number of Rs. 10 notes and the total amount he has is Rs. 3250, what is the total number of notes that he has?

- a. 180      b. 174      c. 195      d. 145

6. The sum of three numbers is 121. The ratio of the second to the third is 9:6 and the first to the third is 1:4. The second number is

- a. 66      b. 60      c. 62      d. 64

Direction(for Q-7): the questions based on the following information.

Out of the total 390 students studying in a college of arts and science, boys and girls are in the ratio of 7:6 respectively and the number of students studying arts and science are ratio of 3:7 respectively. The boys and girls studying arts are in the ratio of 4:5 respectively.

7. How many boys are studying science?

- a. 155      b. 156      c. 158      d. 159

8. The ratio of the number of students in schools A ,B and C is 5:6:8. If the number of students in each of the schools is increased by 30% 25% and 25% respectively , what will be the new ratio of the students in schools a ,B and c?

- a. 14:15:20      b. 13:15:20      c. 13:14:15      d. 15:17:19

9. If A:B = 1 :3, B:C=5: 7, C:D= 9 : 7, then A:B:C:D= ?

- a. 15:45:63:49      b. 15:49:45:63      c. 45:15:63:49      d. 49:15:43:63

10. The cost of making an article is divided between materials, labour and overheads in the ratio of 3:4:1. If the materials cost Rs. 234, then the labour cost is:

- a. Rs 176      b. Rs. 312      c. Rs. 78      d. Rs. 390

11.Nehruji had 'n chocolates. He distributed them among 4 children in the ratio  $1/2:1/3:1/5:1/8$ . If he gave them each one a complete chocolate, the minimum number of chocolates that he had?

- (a) 139      (b) 240      (c) 278      (d) 149

12.The income of A and B are in the ratio 5:3. The expenses of A, B and C are in the ratio 5: 5 : 2. If C spends Rs 2000 and B saves Rs. 700, then A saves

- (a) Rs. 4500      (b) Rs. 1000      (c) Rs. 500      d) Rs. 250

13. An alloy contains copper, zinc and nickel in the ratio 5 : 3 : 2. The quantity of nickel in kg that must be added to 100 kg of this alloy to have the new ratio 5 : 3 : 3, is

- (a) 8                      (b) 10                      (c) 12                      (d) 15

14. A certain number is divided into two parts such that 5 times of the first part added to 11 times of the second part makes 7 times of the whole. The ratio of the first part to second part is:

- (a) 2 : 1                      (b) 5 : 11                      (c) 7 : 5                      (d) 2 : 3

15. Ratio of numerator and denominator of a fraction is 2 : 3. If 6 is subtracted from numerator then result is  $\frac{2}{3}$ rd of the original fraction. Find the numerator of original fraction.

- (a) 6                      (b) 18                      (c) 27                      (d) 26