

## Ration & Proportion Questions

1. The total number of students in a school is 2140. If the number of girls in the school is 1200, then what is the ratio of the total number of boys to the total number of girls in the school?  
(a) 18 : 13      (b) 26 : 25      (c) 47 : 60      (d) 31 : 79      (e) None of these
2. What is the ratio in rupees 2.80 and 40 paise?  
(a) 1 : 7      (b) 2 : 7      (c) 7 : 1      (d) 1 : 14
3. Which of the following is the ratio between a number and the number obtained by adding one-fifth of that number to it?  
(a) 4 : 5      (b) 5 : 4      (c) 5 : 6      (d) 6 : 5
4. If 60% of A =  $\frac{3}{4}$  of B, then A : B is  
(a) 4 : 5      (b) 5 : 4      (c) 9 : 20      (d) 20 : 9
5. If  $2A = 3B = 4C$ , then A : B : C is equal to  
(a) 2 : 3 : 4      (b) 3 : 4 : 6      (c) 4 : 3 : 2      (d) 6 : 4 : 3
6. If the ratio between the ages of P and Q is 2 : 3 and that between the ages of Q and R is 4 : 5, then the ratio between the ages of P and R is  
(a) 3 : 4      (b) 3 : 5      (c) 5 : 6      (d) 8 : 15
7. If  $x : y = 3 : 4$ , then  $(2x + 3y) : (3y - 2x)$  would be equal to  
(a) 2 : 1      (b) 3 : 1      (c) 3 : 2      (d) 21 : 1
8. If  $\frac{1}{x} : \frac{1}{y} : \frac{1}{z} = 2 : 3 : 5$ , then  $x : y : z$  is equal to  
(a) 2 : 3 : 5      (b) 15 : 10 : 6      (c) 5 : 3 : 2      (d) 6 : 10 : 15

9. The present ages of A, B and C are in the ratio of 8 : 14 : 22 respectively. The present ages of B, C and D are in the ratio of 21 : 33 : 44 respectively. Which of the following represents the ratio of the present ages of A, B, C and D respectively?

- (a) 12 : 21 : 36 : 44      (b) 12 : 21 : 33 : 44      (c) 12 : 22 : 31 : 44  
(d) Cannot be determined      (e) None of these

10. When 30% of one number is subtracted from another number, the second number reduces to its four-fifths. What is the ratio of the first to the second number?

- (a) 2 : 5      (b) 3 : 2      (c) 4 : 7      (d) Cannot be determined      (e) None of these

11. Five mangoes and four oranges cost as much as three mangoes and seven oranges. What is the ratio of the cost of one mango to the cost of one orange?

- (a) 4 : 3      (b) 1 : 3      (c) 3 : 2      (d) 5 : 2

12. A, B, C and D have ` 40, ` 50, ` 60 and ` 70 respectively when they go to visit a fair. A spends ` 18, B spends ` 21, C spends ` 24 and D spends ` 27. Who has done the highest expenditure proportionate to his resources?

- (a) A      (b) B      (c) C      (d) D

13. In an alloy, the ratio of copper and zinc is 5 : 2. If 1.250 kg of zinc is mixed in 17 kg 500 g of alloy, then the ratio of copper and zinc in the alloy will be

- (a) 1 : 2      (b) 2 : 1      (c) 2 : 3      (d) 3 : 2

14. A sum of ` 1250 is divided among A, B, C so that A gets  $\frac{2}{9}$  of B's share and C gets  $\frac{3}{4}$  of A's share. The share of C is

- (a) ` 75      (b) ` 90      (c) ` 135      (d) ` 150

15. Three numbers A, B and C are in the ratio of 12 : 15 : 25. If the sum of these numbers is 312, the ratio between the difference of B and A and the difference of C and B is

- (a) 3 : 7      (b) 5 : 1      (c) 3 : 10      (d) 10 : 3

16. Two numbers are in the ratio 7 : 11. If 7 is added to each of the numbers, the ratio becomes 2 : 3. The smaller number is

- (a) 39                      (b) 49                      (c) 66                      (d) 77

17. What number has to be added to the terms of 3 : 5 to make the ratio 5 : 6?

- (a) 6      (b) 7      (c) 12      (d) 13

18. If x is inversely proportional to y and y is proportional to z, then xz

- (a) is proportional to y  
(b) is inversely proportional to y  
(c) is a constant  
(d) is proportional to  $y^2$

19. Prices of foodgrains have risen by 10% and of other items of consumption by 15%. If the ratio of an employee's expenditure on foodgrains and other items is 2 : 5, by how much should his salary be increased so that he may maintain the same level of consumption as before, assuming that his present salary is ₹ 3500?

- (a) ₹ 300                      (b) ₹ 350                      (c) ₹ 375                      (d) ₹ 475

20. Tea worth ₹ 126 per kg and ₹ 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth ₹ 153 per kg, then the price of the third variety per kg will be

- (a) ₹ 169.50      (b) ₹ 170                      (c) ₹ 175.50      (d) ₹ 180

21. The ratio of syrup and water in a mixture is 3 : 1, then the percentage of syrup in this mixture is

- (a) 75%                      (b) 25%                      (c)  $66\frac{2}{3}\%$       (d)  $33\frac{1}{3}\%$

22. The monthly salaries of Pia and Som are in the ratio of 5 : 4. From her monthly salary, she gives  $\frac{3}{5}$  to her mother, 15% towards her sister's tuition fees, 18% towards a loan and she shops with the remaining amount, which is ₹ 2100. What is the monthly salary of Som?

- (a) ₹ 25000      (b) ₹ 30000  
(c) ₹ 15000      (d) ₹ 24000