

## RATIO AND PROPORTION

1.The fourth proportional to 5,8,15, is:

- a)18                      b)21                      c)19                      d)20                      e) None of these

2.  $\frac{5a+3b}{2a-3b} = \frac{23}{5}$  then the value of a:b is:

- a) 1:2                      b)1:3                      c)1:4                      d) 2:3                      e) None of these

3.If p:q=8:15 and q:r=5:8 then find p:q:r is:

- a)8:15:7                      b)7:15:8                      c)8:15:10                      d)10:15:8                      e)None of these

4.If p:q=8:15 and q:r=5:8 and r:s=4:5 then p:s is equal to

- a) 4:5                      b) 2:15                      c)3:19                      d)7:15                      e) None of these

5.Find the mean proportional between 9 & 64 ?

- a)25                      b)24                      c) 27                      d)35                      e)None of these

6.If a:b=3:7, Find the value of (5a +b) : (4a+5b).

- a)15:44                      b)22:35                      c)15:49                      d)22:47                      e) None of these

7.Three friends divide Rs. 624 among themselves in the ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$  then the share of the third friend is Rs..

- a)288                      b)192                      c)148                      d)144                      e) none of these

8.Find the compounded ratio of 2:7,5:3 and 4:7

- a)147:40                      b)40:147                      c)147:30                      d)30:147                      e) none of these

9.If p:q:r = 2:3:4 then find  $\frac{p}{q} : \frac{q}{r} : \frac{r}{p}$

- a)8:9:24                      b)9:8:24                      c)24:8:9                      d)8:24:9                      e) none of these

10.The ratio of number of boys and girls in a school is 3:5 .If there are 400 students in the school. Find the number of girls in the school.

- a)150                      b)250                      c)240                      d)160                      e) none of these

11.The ratio between two number is 2:5. If each number is increased by 4 the ratio becomes 1:2.Find the number.

- a)6,9                      b)10,25                      c)12,30                      d) 8,20                      e) none of these

12.The income of A and B are in the ratio 3:2 and expenses are in the ratio 5:3.If both saves Rs.200 then the income of A is:

- a)800                      b)1500                      c) 1000                      d)1200                      e) none of these

13. The marks obtained by Raj in maths ,chemistry and physics are in the ratio  $\frac{1}{2} : 1/3 : 3/5$ . If his total score is 860 .His marks in maths are:

- a)160                      b)300                      c)228                      d)312                      e) none of these

14.A sum of money is divided among A,B and C so that to each rupees A gets , B gets 65 paise and C gets 35 paise. If c's share is Rs. 28 the sum is:

- a)120                      b)160                      c)140                      d)180                      e) none of these

15.The students in three classes are in the ratio of 2:3:5. If 20 students are increased in each class. The ratio changes to 4:5:7. The total number of students before the increase were:

- a)10                      b)90                      c)100                      d)110                      e) none of these

16. What should be subtracted from both the number which are in the ratio of 3:4 so that the ratio become 2:3?

- a)4                      b)6                      c)10                      d)CND                      e) none of these

17. The ratio of the number of boys and girls in a college is 7:8. If the percentage increase of boys and girls be 20% and 10% respectively what will be the new ratio?

- a)8:9                      b)17:18                      c)21:22                      d) CND                      e) none of these

18. A and B are invested in the ratio 3:2 in a business. If 5% of the total profit goes to charity and A's share is Rs 855. Find the total profit.

- a)1800                      b)3200                      c)1500                      d)800                      e) none of these

19. Seats of Maths ,Physics, and Biology are in the ratio of 5:7:8 respectively. There is a proposal to increase seats by 40%,50%,75% respectively. What will be the respective ratio of increased seats.

- a)2:3:4                      b) 6:7:8                      c)6:8:9                      d) C ND                      e) none of these

20. There is a ratio of 5:4 between two numbers. If 40% of first number is 12 then what would be the 50% of the second number?

- a)12                      b)24                      c)18                      d)CND                      e) none of these

21. The ratio of A's salary and B's salary is 9:4. If A's salary is increased by 15% then his total salary become Rs 5175. What is B's salary?

- a)2000                      b)4000                      c)4500                      d)2500                      e) none of these

22. An amount of money is to be distributed among P, Q and R in the ratio of 5:8:12 respectively. If the total share of Q and R is four times that of P, Then what is definitely P's share

- (a)3000                      (b)5000                      (c)8000                      (d)CND                      (e)None of these

23. When 30% of a number is added to another number the second number increase to its 140% . What is the ratio between the first and the second number.

- a) 3:4                      b) 4:3                      c) 3:2                      d) CND                      e) none of these

24. An amount of money is to be divided among P, Q and R in the ratio of 4:9:6. If R gets 4 times more than P. What is Q's share in it?

- a)1800                      b) 2700                      c)3600                      d) CND                      e) none of these

25. A sum of money is to be distributed among A, B, C and D in the proportion 5:2:4:3. If C gets 1000 more than D. What is B's share?

- a) 500                      b)1500                      c)2000                      d)1400                      e) none of these

26. The ratio of three classes of a school is 9:12:16. If 120 new students in every classes take admission the new ratio of the class become 15:18:22. The number of students in both the class is:

- a) 740                      b) 800                      c) 548                      d)840                      e) 900

27. A man had some hens and cows. The number of heads and legs of both hens and cows is 53 and 170. Find the total no of cows.

- a)21                      b)32                      c)24                      d)34                      e) none of these

28. In a bag there is a coin of 1Rs, 50paise, 25paise, and 10paise in the ratio of 10:6:3:2 after counting all coin we get total amount of Rs 27.90 So Find out the difference between 50 paise and 10 paise coin:

- a) 8                      b) 10                      c) 6                      d) 12                      e) none of these

29. A man travelled 300km by bus, train, and Car in the ratio of 2:8:5. The Fare of these three transport vehicles is in the ratio of 2:3:6. If a man can Go 1 km by bus in 60 paise so how much amount he needs to complete total distance?

- a) 170                      b) 175                      c) 132                      d) 187                      e) none of these

30. The angle of the quadrilateral are in the ratio of 3:5:9:7. The 2<sup>nd</sup> largest angle of the quadrilateral is equal to the largest angle of a triangle. One of the angles of a triangle is 25 degree. What is the value of second largest angle of the triangle?

- a) 50                      b) 20                      c) 60                      d) 40                      e) none of these

31. In a college the ratio of number of boys to girls is 31 :23 respectively. When 75 more girls join the college this ratio becomes 124:107. How Many more girls should join the college to make the number of boys And girls equal?

- a) 75                      b) 90                      c) 60                      d) 85                      e) none of these.

32. Ratio of earnings of A and B is 4:7 respectively If the earnings of A increase by 50% and the earning of B decrease by 25% the new ratio of their earnings becomes 8:7 respectively. What are A's earning?

- a) 26000                      b) 28000                      c) 21000                      d) CND                      e) none of these

33. An amount of Rs.2430 is divided among A,B,C such that if their share be reduced by Rs 5, Rs 10, and Rs 15 respectively, the remainder shall be in the ratio of 3:4:5 then B's share was:

- a) 605                      b) 790                      c) 800                      d) 810                      e) none of these

34. Three containers have volumes in the ratio 3:4:5. They are full of mixtures of milk and water. The mixtures contain milk and water in the ratio of 4:1, 3:1 and 5:2 respectively. The contents of all these three container are poured into a fourth container. The ratio of milk and water in the fourth container is :

- a) 4:1                      b) 151:48                      c) 157:53                      d) 5:2                      e) None of these

35. Three number A,B,C are in ratio of 12:15:25 If sum of these number be 364. Find the ratio between difference of B and A and the difference of C and B?

- a) 3:2                      b) 3:10                      c) 3:5                      d) 4:2                      e) none of these

36. If a mixture contains alcohol and water in the ratio 4:3. If 5 litres of water is added to the mixture the ratio become 4:5 Find the quantity of alcohol in the given mixture

- a) 5                      b) 7.5                      c) 10                      d) 12                      e) None of these

37. If Rs 510 be divided among A,B,C in such a way that A gets  $\frac{2}{3}$  of what B gets and B gets  $\frac{1}{4}$  of what C gets then their share are respectively in Rs:

- a) 120,240,150                      b) 60,90,360                      c) 60,90,360                      d) 70,90,350                      e) none of these

38. Salaries of Ravi and Sumit are in the ratio of 2:3 .If the salary of each is increased by Rs 4000 .The new ratio becomes 40:57. What is Sumit's salary?

- a) 1700                      b) 20000                      c) 23500                      d) 34000                      e) None of these