**Ratio and proportion**

1. If a : b = 4 : 9 and b : c =9 : 16. Find a : b : c and a : c
2. 2 : 3 : 4 and 1 : 2 b) 4 : 9 : 16 and 1 : 4 c) 1 : 2 : 4 and 1 : 2 d) 3 : 4 : 6 and 1 : 4
3. The duplicate ratio of 5 : 7 is
4. 5 : 7 b) 10 : 14 c) 25 : 49 d) 50 : 70
5. The triplicate ratio of 4 : 5 is
6. 12 : 15 b)8 : 10 c)60 : 120 d)64 : 125
7. The compounded ratio of (17 : 18), (18 : 19) and (19 : 20) is
8. 17 : 19 b) 18 : 19 c) 17 : 20 d) 18 : 20
9. A bag contains various coins 5 Rs, 2 Rs, 1 Re and 50 paise in the ratio of 1 : 2 : 4 : 8 respectively. If the total amount in the bag is 68, how many coins of 1 Re does the bag have?
10. 12 b) 14 c)16 d) 18
11. A mixture contains alcohol and water in the ratio 5 : 2. If 3 litres of water is added to the mixture, the ratio becomes 5 : 3. Find the quantity of alcohol in the given mixture.
12. 2 L b) 3 L c) 4 L d) 5 L
13. Suppose x varies inversely as square of y and when y = 5 and x = 25. Find x when y = 25.
14. 5 b) 15 c) 1 d) 25
15. A sum of money is to be distributed amongst P, Q and R in the ratio of 6 : 4 : 5. If the total sum to be distributed is Rs 210, what is Q’s share?
16. 80 b) 42 c) 56 d) 60
17. The ratio of areas of two squares is 36 : 64. What is the ratio of their perimeters?
18. 1 : 3 b) 4 : 9 c) 3 : 4 d)4 : 3
19. Seats for EC, CS and CIVIL in a college are in the ratio 7 : 2 : 5. There is a proposal to increase these seats by 50%, 75% and 60% respectively. What will be the ratio of increased seats?
20. 6 : 8 : 9 b) 21 : 7 : 14 c) 14 : 21 : 7 d) 8 : 6 : 9
21. If 25% of a number is equal to two-third of another number, what is the ratio of first number to second number?
22. 7 : 3 b) 3 : 7 c) 8 : 3 d) 3 : 8
23. A hare and fox are running in a race. Four leaps of hare are equal to 2 leaps of fox. For every 8 leaps of hare, the fox takes five leaps. Find the ratio of their speeds.
24. 2 : 5 b) 3 : 5 c) 4 : 5 d)1 : 5
25. The diameters of fore wheel and rear wheel of a tractor are in the ratio 1:3. When the fore wheel makes 150 revolutions per minute, how many revolutions per min would the rear wheel make?
26. 25 b) 50 c) 75 d) 60
27. Divide Rs.1170 between l, m, n such that l : m = 2 : 5 and m : n = 2 : 5 then the share of m is
28. 100 b) 500 c) 400 d)300
29. A company has 5 divisions and each division has 12 sections. If there are 14 employees in each section and is these employees are distributed in ratio of 1 : 2 : 9 (Supervisor : foreman : workers), what is the total number of foreman in the company?
30. 200 b) 140 c) 130 d) 150
31. Divide 60 in the ratio 2 : 4. What is thrice the smaller part?
32. 20 b) 40 c) 60 d) 80
33. Ramesh, Satish and Suresh are three friends. Rs.720 is distributed among them such that ½ of Ramesh’s share is equal to 1/3 of Satish’s share which is equal to 1/4th of Suresh’s share. How much is the share of Suresh?
34. 300 b) 320 c) 380 d) 170
35. The ratio of perimeter of a circle to that of a semicircle both having radius of 7cms is.
36. 9 : 11 b) 22 : 7 c) 11 : 9 d)7 : 22
37. The ages mother and son are in the ratio 7 : 3 today. After 5 years, this ratio would be 2 : 1. How many years old should the mother be at the time of birth of her son?
38. 15 b) 30 c) 20 d)18
39. Ram is reading 374 page novel. It takes him 6 days to read the first 132 pages. If he continues to read at the same rate, how many more days will it take him to finish the novel?

a)17 b)11 c)6 d)10