**RATIO & PROPORTION**

**Finding Ratio:**

1. If a:b = 2:3 and b:c = 4:5, then a:b:c = ?
2. If a:b = 2:3 and b:c = 4:5 and c:d= 6:7 then a:b:c:d = ?
3. If a:b = 1 ½ : 2 ¼ and b:c = 2:3 ½, then what is a:b:c equal to
4. If 0.75 : x **::** 5 : 8, then x is equal to :

**Divided into parts:**

1. The sum of three numbers is 140. If the ratio of the first to the second is 2:3 and that of second to the third is 4:5 then the second number is?
2. Find B's share in Rs.6300 if A:B = 2:3, B:C = 4:5 and C:D = 3:7
3. The cost of making an article is divided between materials, labor and overheads in the ratio of 3:4:1. If the material cost Rs. 234, then the labor cost?

**Based on Numbers:**

1. The ratio of two numbers is 6:7 , the sum is 650. Find the First number?
2. 20% and 50% are 2 numbers respectively more than a 3rd number. Find the ratios of 2 numbers?
3. In a school the number of boys and that of the girls are in the respective ratio of 2:3. If the number of boys is increased by 20% and that of girls is increased by 10%, what will be the new ratio of number of boys to that of the girls?
4. A sum of money is to be distributed among P, Q, R and S in the proportion 2:5:6:7, If R get Rs.500 more than S. What is P’s share?
5. Rs 650 was divided among 3 children in the ratio 2 : 4 : 7. Had it been divided in the ratio 1/2 : 1/4 : 1/7. Who would have gained the most and by how much?

**Increase / Decrease:**

1. The ratio between two numbers is 2:3. If each number is increased by 4, the ratio between then becomes 5:7, the difference between numbers.
2. What number has to be added to each term of 4 : 7 to make the ratio 5 : 6?
3. A, B and C divide Rs 4200 among themselves in the ratio 7 : 8 : 6. If Rs 200 is added to each of their shares, what is the new ratio in which they will receive the money?
4. Salaries of Ravi and Sumit are in the ratio 2 : 3. If the salary of each is increased by Rs. 4000, the new ratio becomes 40 : 57. What is Sumit's salary?

**Income / Expenditure**

1. The income of Riya and Priya are in the ratio of 4:5 and their expenditure is in the ratio of 2:3. If each of them saves 2000, then find their income.?
2. If the ratio of income in two consecutive years is 2:3 respectively. The ratio of their expenditure is 5:9. Income of 2nd year is 45000 and expenditure for the 1st year is 25000. Find the savings in both the year?

**Coins:**

1. A box contains 280 coins of one rupee, 50-paise and 25 paise. The value of each kind of the coins are in the ratio of 8 : 4 : 3. Then the number of 50 paise coins is
2. David has Rs.30 rupees in the denomination of 25 paisa, 10 paisa, and 5 paisa in ratio

1:2:3. Calculate how many 25 paisa coins he has ?

**Partnership:**

1. A starts business with Rs. 3500 and after 5 months, B joins with A as his partner. After a year, the profit is divided in the ratio 2 : 3. What is B's contribution in the capital?
2. A and B started a partnership business investing some amount in the ratio of 3 : 5. C joined them after six months with an amount equal to that of B. In what proportion should the profit at the end of one year be distributed among A, B and C ?
3. A, B, C rent a pasture. A puts 10 oxen for 7 months, B puts 12 oxen for 5 months and C puts 15 oxen for 3 months for grazing. If the rent of the pasture is Rs. 175, how much must C pay as his share of rent?
4. A and B invest in a business in the ratio 3 : 2. If 5% of the total profit goes to charity and A's share is Rs. 855, the total profit is: