

# Questions

- In an office the ratio of male to female in 2024 was 6:5. By 2025 the number of males increased by  $x\%$ , while the number of females increased by 20%. If the total people in 2025 is 132 and in 2024 was 110, find the value of  $x$ .
- In an election between two candidates 20% of the votes were invalid. The winner received 60% of the total valid votes and won by 800 votes. Find the total number of voters.
- The number of trees in a forest decreases by 15% each year. After four years, the number of trees becomes 5220. Let the current number of trees be  $T$ . Find 20% of  $T$ .
- 432 pens are distributed between by X, Y and Z. If the ratio of the number of pens distributed by X and Z is 12:11 and the number of pens distributed by Y is 8.33% more than that of X, then find the

difference between the number of pens distributed between Y and Z.

- The salary of Ajay is 20% more than the salary of Suresh. The ratio of their expenditures is 7:4. From his expenditure, Ram spends 25% on rent, 40% on groceries and the remaining amount on travelling expense. If the saving of Suresh is equal to the amount spent by Ajay on groceries, which is Rs.18,000, then find the savings of Ajay.
- Rohan scored 72 marks in English. He secured 80% marks in Reasoning and  $(x + 10)$  marks in Maths. The maximum marks for each subject is 100. If Rohan's overall percentage across all three subjects is 78%, find the value of x.
- The sum of  $(4/7)$  of the weight of a watermelon and 35% of the same weight is 820 kg. What is 72% of the weight of the watermelon?
- The price of sugar is increased by 25%, and a family reduces its consumption by

8kg to keep the total expenditure unchanged. Find their original monthly consumption.

- In an essay competition total, 240 participants reach the final round. 70% of the total participants failed to qualify for the finals. If 65% of the finalists did not win any medals, find the total number of participants in the competition.
- The ratio of male to female students in a college is 7:9. After 360 women are admitted, the number of men becomes 25% more than the number of women. Find the number of final number of women in the college.
- The total number of students who failed in science and maths exams is 18%. The percentage of students who failed only in science is 6% and no student failed in both exams. If the difference between the number of students who failed in science and maths is 90, find the total number of students who passed in both exams.

- The side of a square is 16 cm. If the side is increased by 25%, find the percentage increase in area of square compared to its original area.
- The populations of city X and Y are initially in the ratio 4:7. After one year, the population of both cities increased by 15%. After second year, the population of city X decreased by 10% while the population of city Y increased by 20%. If the difference between their populations after two years is 13,500 find the difference between their initial populations.
- A bag contains a total of 50 red and green marbles. 60% of them are red. If each green marble costs Rs.6 and each red marble costs 50% more than a green marble, find the difference in the total price of red and green marbles.