1. An outgoing batch of students wants to gift books worth Rs 4,200 to their teachers. If the boys offer to pay 50% more than the girls and an external sponsors gives three times the boy's contribution, then how much should the boys donate?
   (a) Rs. 600 (b) Rs. 900 (c) Rs. 840 (d) Rs. 1200
2. A man leaves Rs. 8,600 to be divided among 5 sons, 4 daughters and 2 nephews, if each daughter receives four times as much as each nephew and each son receives five times as much as each nephew, how much does each daughter receive?
   (a) Rs. 100 (b) Rs. 600 (c) Rs. 800 (d) Rs. 1000
3. Rs. 430 is divided among 45 persons, such that the ratio of total amount received by all men, all women & all children are in the ratio 12: 15: 16. While the ratio of amount received by each men, each woman & each child is 6: 5: 4. Find the amount received by each woman.
   (a) Rs. 10 (b) Rs. 20 (c) Rs. 40 (d) Rs. 50
4. A person bought some rice and wheat for Rs. 380. The ratio of weight of rice and wheat is 4: 3 and the price of equal amount of rice and wheat are in the ratio 5: 6. The rice was bought of worth.
   (a) Rs. 380 (b) Rs. 300 (c) Rs. 200 (d) Rs. 180
5. The ratio of number of cans of orange, pineapple and mixed fruit juices kept in a store is 8: 9: 15. If the store sells 25%, 33.33% and 20% of orange, pineapple and mixed fruit juices cans respectively then what is the ratio of number of cans of these juices in the remaining stock?
   (a) 8: 9: 15 (b) 1: 1: 2 (c) 12: 15: 19 (d) 4: 9: 13
6. From each of the two given unequal numbers. Half of the smaller number is subtracted. Then, among of resulting numbers the larger one is five times of the smaller one. Then the ratio of the larger to the smaller one is.
   (a) 2 : 1 (b) 3 : 2 (c) 3 : 1 (d) 1 : 4
7. A naughty student breaks a pencil in such a way that the ratio of two broken parts is same as that of the original length of the pencil to one of the larger part of the pencil. The ratio of the other (smaller) part to the original length of the pencil is?
   (a) $\frac{2}{3+\sqrt{5}}$ (b) $\frac{1}{3+\sqrt{5}}$ (c) $\frac{3}{3+\sqrt{5}}$ (d) none of these
8. A sum of rupees 3115 is divided among A, B and C such that if Rs 25, Rs 28 and Rs 52 are diminished from their shares respectively, the remainder shall be in the ratio of 8:15:20. Find the share of each.
   (a) 585, 1078, 1452 (b) 685, 1178, 1252 (c) 485, 1088, 1352 (d) 785, 1378, 1652
9. One year ago the ratio of income of A & B is 3: 5. The ratio of their last year income to current year income is 2: 3 and 4: 5. If their total current year income is Rs. 4300. Find their present income individually.
   (a) Rs. 1900, 2400 (b) Rs.1500,2700 (c) Rs.1800,2500 (d) Rs.1200,2100
10. The ratio of last year income of A, B & C is 3: 4: 5. While the ratio of their last year income to current year income is 4: 5, 2: 3 and 3: 4. Their total current year income is Rs. 98,500. Find the present income of B + C.
    (a) Rs.76000 (b) Rs.85000 (c) Rs.56000 (d) Rs.75000
11. The ratio of the income of A and B in the last year was 4: 3. The ratios of their individual incomes in the last year and the present year are 3: 4 and 5: 6, respectively. If their total income in the present year in Rs. 24.12 lakhs, then the sum of the income (in Rs. lakh) of A in the last year and that of B in the present year is:
    (a) 22.17 (b) 10.98 (c) 20.52 (d) 21.28
12. The ratio of the incomes of A and B last year was 4: 3, respectively. The ratio of their individual incomes of the last year and the present year is 3: 4 and 5: 6 respectively. If their total income for the present year is Rs. 8.04 lakh, then income of B last year was:
    (a) Rs. 2.7 lakh (b) Rs. 3.6 lakh (c) Rs. 2.4 lakh (d) Rs. 2.8 lakh
13. The ratio of the incomes of A and B in 2020 was 5: 4. The ratios of their individual income in 2020 and 2021 were 4: 5 and 2: 3, respectively. If the total income of A and B in 2021 was Rs. 7, 05,600, then what was the income (in Rs.) of B in 2021?
    (a) 3,45,600 (b) 2,79,700 (c) 3,60,000 (d) 4,25,900
14. The ratio of expenditure of A, B and C is 16: 12: 9 and their total income is 1530. Find the share of B's income, if they save 20%, 25% and 40% of their income.
    (a) 480 (b) 540 (c) 350 (d) 450
15. The total income of A, B and C is 6060. A spend 80%, B spend 85% and C spend 75% of their income. The ratio of their saving is 5: 6: 9. Find the income of A.
    (a) Rs. 4500 (b) Rs. 1500 (c) Rs. 3500 (d) Rs. 2500
16. The ratio of income of A, B and C is 3: 7: 4 and the ratio of that expenditure is 4: 3: 5 respectively. If A saves Rs. 300 out of Rs. 2400, find the saving of C.
    (a) Rs 675 (b) Rs. 775 (c) Rs. 575 (d) Rs. 875

17. Two vessels contain milk & water in the ratio 7: 5 and 7: 9. If both vessels are mixed in ratio 1: 1, find the ratio of milk and water in new mixture.
(a) 49 : 47 (b) 50 : 52 (c) 53 : 56 (d) 35 : 39
18. Three vessels each of 10 litre capacity contain a mixture of milk water in the ratio 2: 1, 3: 1 and 3: 2. If all the three vessels are emptied into a large vessel, find the ratio of milk and water in new mixture.
(a) 130 : 112 (b) 121 : 59 (c) 112 : 70 (d) 125 : 30
19. Three glasses of equal volume contain acid mixed with water. The ratio of acid and water are 2: 3, 3: 4 and 4: 5 respectively. Contents of these glasses are poured into a large vessel. The ratio of acid and water in the large vessel is:
(a) 417 : 564 (b) 401 : 544 (c) 407 : 560 (d) 411 : 540
20. Two vessel A & B contain a mixture of milk & water in the ratio 4: 5 and 5: 1. If both vessel are mixed in the ratio 5: 2. Find the ratio of milk & water in new mixture.
(a) 4 : 5 (b) 6 : 5 (c) 6 : 2 (d) 5 : 4
21. 60 kg of an alloy A is mixed with 100 kg of alloy B. If alloy A has lead and tin in the ratio 3 : 2 and alloy B has tin and copper in ratio 1 : 4, the amount of tin in the new alloy is:
(a) 44 kg (b) 53 kg (c) 80 kg (d) 24 kg
22. A 2 kg metal of which 1/3 is zinc and rest is copper mixed with 3 kg of metal of which 1/4 is zinc and rest is copper. What is the ratio of zinc to copper in new mixture?
(a) 17 : 43 (b) 19 : 25 (c) 21 : 23 (d) 18 : 24
23. In a colored picture of blue and yellow color, blue and yellow color is used in the ratio of 4: 3 respectively. If in upper half, half blue : yellow is 2 : 3, then in the lower half blue : Yellow is
(a) 26 : 9 (b) 4 : 7 (c) 5 : 9 (d) 6 : 11
24. Ratio of land water on earth is 1: 2 and ratio of land and water in northern hemisphere is 2: 3. Find the ratio of Land and water in Southern hemisphere.
(a) 8 : 10 (b) 4 : 11 (c) 5 : 12 (d) 6 : 15
25. A policeman starts to chase a thief. When the thief goes 10 steps the policeman moves 8 steps and 5 steps of the policeman are equal to 7 steps of the thief. The ratio of the speeds of the policeman and the thief is:
(a) 25 : 28 (b) 25 : 26 (c) 28 : 25 (d) 56 : 25
26. A dog starts chasing a rabbit as long as the rabbit moves 9 steps in a time, dog take place 6 steps in same time. The distance taken by the dog in 5 steps is equal to the distance covered by the rabbit in 8 steps. The ratio of the speed of dog and rabbit is:
(a) 16 : 15 (b) 15 : 16 (c) 48 : 49 (d) 56 : 25
27. If a is the mean proportional between 4 and 9 and b is the mean proportional between 2a and 48, then the value of 5b - 9a is.
(a) 22 (b) 88 (c) 66 (d) 44
28. If two extreme terms of three continued proportional numbers to ab/c, ac/b then the mean proportional is.
(a) ac (b) ab (c) b (d) a
29. The fourth proportional to 4x + 3, 7x + 2 and 9x + 2, if x = 4 is.
(a) 60 (b) 45 (c) 58 (d) 57
30. Find two numbers such that their mean proportion is 12 and third proportion is 768.
(a) 3 and 24 (b) 3 and 48 (c) 6 and 48 (d) 6 and 24
31. When x is added to each of 9, 15, 21 and 31 the numbers so obtained are in proportion. What is the mean proportional between the numbers (3x - 2) and (5x + 4)?
(a) 42 (b) 35 (c) 20 (d) 30
32. When 'x' is subtracted from each of the numbers 58, 75, 79 and 103, then the resulting numbers in the given order, are in pro portion. What is the mean proportional between (x + 2) and (3x - 5) 'x'?
(a) 12 (b) 15 (b) 18 (d) 10
33. When x subtracted from each of the numbers 54, 49, 22 and 21, the numbers so obtained are in proportion. The ratio of $(8x-25)$ to $(7x-26)$ is:
(a) 5 : 4 (b) 15 : 13 (b) 29 : 24 (d) 27 : 26