

1. $a : b = 2 : 3$ then $(5a-2b) : (5a+2b)$ is equal to
A. 3 : 7 B. 2 : 7 C. 1 : 3 D. 1 : 4
2. $a : b = 3 : 5$, $b : c = 7 : 8$ and $c : d = 2 : 3$ then $2a : 3d$ is equal to
A. 7 : 15 B. 7 : 30 C. 1 : 2 D. 7 : 20
3. $(a+b) : (b+c) : (c+a) = 7 : 6 : 5$ and $a+b+c = 27$ then what will be the value of $\frac{1}{a} : \frac{1}{b} : \frac{1}{c}$
A. 3 : 6 : 4 B. 4 : 3 : 6 C. 3 : 2 : 4 D. 3 : 4 : 2
4. $\frac{a+b}{c} = \frac{23}{12}$ and $\frac{b+c}{a} = \frac{17}{b8}$ then what is the value of $\frac{a+c}{b}$
A. $\frac{9}{5}$ B. $\frac{107}{68}$ C. $\frac{116}{59}$ D. $\frac{16}{11}$
5. If $(4a+7b)(4c-7d) = (4a-7b)(4c+7d)$, then which one of the following is correct?
A. $\frac{a}{b} = \frac{c}{d}$ B. $\frac{a}{d} = \frac{c}{b}$ C. $\frac{a}{b} = \frac{d}{c}$ D. $\frac{4a}{7b} = \frac{c}{d}$
6. If $\frac{3}{5}p = \frac{7}{9}q = \frac{4}{5}r$, Then what is the ratio of p, q and r respectively?
A. 35 : 36 : 15 B. 140 : 108 : 105
C. 135 : 140 : 105 D. 70 : 45 : 63
7. If $a : b = 3 : \sqrt{5}$, then the value of $(2a+b) : (3a-2b)$ is
A. $\frac{1}{64}(64+21\sqrt{5})$ B. $\frac{1}{62}(64+21\sqrt{5})$
C. $\frac{1}{63}(64+21\sqrt{5})$ D. $\frac{1}{61}(64+21\sqrt{5})$
8. If $a : b : c = \frac{1}{4} : \frac{1}{3} : \frac{1}{2}$, then $\frac{a}{b} : \frac{b}{c} : \frac{c}{a} = ?$
A. 12 : 9 : 8 B. 8 : 9 : 24 C. 9 : 8 : 24
D. 9 : 12 : 8
9. If $a+b-c : b+c-a : c+a-b = 8 : 7 : 6$. Find $\frac{9}{5} : \frac{9}{5} : \frac{9}{5}$
A. 195 : 182 : 210 B. 182 : 210 : 195
C. 210 : 195 : 182 D. 15 : 13 : 14

10. If $\frac{p}{q} = \frac{r}{s} = \frac{t}{u} = \frac{5}{2}$. Then find the value of $\frac{(ap^3 - br^3 + ct^3)}{(aq^3 - bs^3 + cu^3)} = ?$
A. 25 B. $\frac{5}{2}$ C. $\frac{25}{4}$ D. 15.625
11. If $(5x+2y) : (10x+3y) = 5:9$, then $(2x^2 + 3y^2) : (4x^2 + 9y^2) = ?$
A. 31 : 87 B. 10 : 27 C. 16 : 47 D. 1 : 3
12. $12a = 16b = 15c$ find a:b:c
A. 12 : 16 : 15 B. 20 : 15 : 16
C. 15 : 16 : 12 D. 16 : 15 : 20
13. $x : y = 3 : 2$ and $x + y = 90$ then the value of $7(x-y) : (x+y)$
A. 7 : 5 B. 2 : 3 C. 7 : 9 D. 7 : 6
14. Dividing the amount rupees 18144 among three peoples A,B,C in the ratio 3 : 5 : 8. The amount B gets more than A is
A. 2178 B. 2268 C. 2464 D. 2386
15. If an amount of rupees 800 is distributed between Rabi Mohan and Govind in the proportion 2 : 5 : 3 then the sum of the shares of Mohan and govind is
A. 560 B. 400 C. 640 D. 240
16. The ratio of tables and chairs in a room is 7 : 9. if there are 560 tables and chairs in the room then what is the number of chairs
A. 397 B. 315 C. 463 D. 489
17. The sum of the squares of three natural numbers is 1029. And they are in the proportion 1 : 2 : 4. The difference between greatest number and smallest number is
A. 21 B. 18 C. 15 D. 31
18. Find the third proportional to 16 and 20
A. 24 B. 25 C. 32 D. 40
19. The fourth proportional to 10 12 15 is
A. 24 B. 22 C. 18 D. 20
20. If x is the mean proportional between 12.8 and 64.8 and y is third proportional to 38.4 and 57.6 then $2x : y$ is equal to
A. 2 : 3 B. 1 : 2 C. 3 : 4 D. 4 : 5

21. What is the ratio between the fourth proportional of 3, 4, 9 and the mean proportional between 2 and 98
- A. 7 : 8 B. 7 : 6 C. 6 : 7 D. 9 : 7
22. What number should be added to each of the number 103 135 110 and 144 so that the resulting numbers are in the proportion
- A. 12 B. 15 C. 9 D. 6
23. When x is added to each of 10 16 22 and 32 the numbers so obtained in this order are in proportion. what is the mean proportional between the numbers $(X + 1)$ and $(3X + 1)$
- A. 12 B. 9 C. 15 D. 10
24. When x is added to each 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. 20 B. 42 C. 35 D. 30
25. If $(2x + 1)$, $(X + 2)$ 2 and 5 are in proportion, then what is the mean proportional between $3.5(1-x)$ and $8(1+x)$
- A. 5.5 B. 4.25 C. 5.25 D. 4.5
26. The income of two persons p and q are in the ratio 5 : 6. if each of them saves rupees 200 per month the ratio of their expenditures 3 : 4. find the income of q
- A. 750 B. 800 C. 600 D. 740
27. The salaries of Raju and Peter and the ratio 3 : 5. if the salary of each is increased by rupees 2500 then the new ratio is 11: 5 what is peters salary
- A. 3500 B. 4000 C. 2500 D. 5000
28. The ratio of the income of a and b is 3 ratio 5 where is the ratio of their expenditures is 4:7 respectively. If a and b save rupees 16000 and rupees 26000 respectively then what is the difference between their expenditures
- A. 6800 B. 5400 C. 5000 D. 6000
29. The ratio of two numbers is 3 : 5. if 8 is added to the first and 7 to the second then the ratio becomes 2 : 3. What will be the ratio become if 6 is added to each
- A. 5 : 9 B. 5 : 7 C. 7 : 9 D. 9 : 14
30. The ratio of boys and girls in a group is 7: 6 . if 4 more boys join the group and 3 girls leave the group then the ratio of boys to girls becomes . 4:3 what is the total number of boys and girls initially in the group
- A. 117 B. 78 C. 91 D. 104
31. If a sum of rupees 1180 is to be divided among A,B and C, such that 2 times A's share 5 times B's share 7 times C's share are equal. Then A,s share is
- A. 500 B. 750 C. 650 D. 700
32. The ratio of the number of main and women in a factory is 14 : 19. If the total number of employees in the factory is 2145 then the number of women in the factory is
- A. 1367 B. 1976 C. 1645 D. 1235
33. When ticket prices to a water park are increased in the ratio 11 : 12. Then the number of daily visitors to the park fall in the ratio 8 : 7. If the daily revenues before the increase in ticket price was rupees 176000 then find the daily revenues after the increase in ticket price
- A. 264000 B. 112000 C. 192000 D. 168000
34. The entry ticket of fun park was increased in the ratio 7 : 9 due to which footfalls fail in the ratio 13 : 11. What is the new daily collection if the daily collection before the price hike was Rs 227500
- A. 237500 B. 247500 C. 232500 D. 242500
35. The railway fares of a air condition sleeper and ordinary sleeper class are in the ratio 4 : 1. The number of passengers traveled by air conditioned sleeper and ordinary sleeper classes were in the ratio 3 : 25. If the total collection was rupees 74000, how much did air conditioner sleeper passengers pay
- A. 24000 B. 30000 C. 20000 D. 32000
36. The train ticket fare from places A to B in second class AC and third class AC is rupees 2500 and rupees 2000 respectively. If the fares of second class AC and third class AC are increased by 20% and 10% respectively. then find the ratio of the new fares to 2nd class AC and third class AC
- A. 15 : 11 B. 15 : 13 C. 12 : 11 D. 13 : 11
37. Ratio of the bank balance of three brothers A,B and C is 10 : 12 : 5 . B transfer RS 60,000 from his account to C's. The new ratio of the bank balance is becomes 10: 9 : 8. what is the new bank balance of A
- A. 100000 B. 200000 C. 300000 D. 400000
38. The monthly incomes of A and B are in the ratio 3 : 5 and the ratio of the savings is 2 : 3. If the income of B is equal to three times the savings of A then what is the ratio of the expenditures of A and B
- A. 8 : 5 B. 5 : 8 C. 8 : 15 D. 15 : 8
39. The ratio of monthly income of x and y is 5 : 4 and that of their monthly expenditure is 9 : 7. If the income of y is equal to the expenditure of x then what is the ratio of the savings of x and y
- A. 9 : 8 B. 8 : 9 C. 7 : 6 D. 6 : 7

40. 70200 is divided among A,B and C in such a way that A receives $\frac{4}{5}$ th the sum of (B+C). Find the amount received by C if B receives $\frac{2}{11}$ the sum of (A+C)
- A. 28200 B. 32940 C. 29140 D. 25850
41. The wages of three laborers A,B and C are in the ratio 10 : 12 : 15. A's wage is increased in the ratio 5 : 6 B's is increased in the ratio 3 : 4 and C is increased in the ratio 3 : 5. the new ratio of the wages of a ratio B ratio C is
- A. 15 : 18 : 20 B. 12 : 16 : 25
C. 6 : 7 : 9 D. 8 : 6 : 5
42. Before a battle there were in the ratio of captains to soldiers was 2:7. During the war 25 captains and 100 soldiers were martyred. The new ratio of captains to soldiers become 3:10. What is the number of soldiers after the war
- A. 250 B. 200 C. 150 D. 100
43. What is the number of candidates who had applied if the ratio of selected to unselected was 14 : 25. If 35 less had applied and 10 less selected the ratio of selected to unselected would have been 3 : 5.
- A. 195 B. 205 C. 185 D. 175
44. How many job applicants had applied if the ratio of selected to unselected was 19 : 17. If 1200 less had applied and 800 less selected then the ratio of selected to unselected would have been 1: 1.
- A. 6000 B. 7200 C. 8400 D. 4800
45. The ratio of the sum of the salaries of A and B to the difference of their salaries is 11: 1. and the ratio of the sum of the salaries of B and C to the difference of their salaries is also 11 : 1. If A,s salary is the highest and C,s the lowest then what is the salary of B given the total of all the salaries is rupees 18200
- A. 72000 B. 60000 C. 50000 D. 86400
46. In a color picture of rate and green color rate and green color is used in the ratio 2:3 respectively if the upper half green ratio rate is 5 ratio 4 then in the lower half red : green ratio is
- A. 22 : 23 B. 11:34 C. 10 : 7 D. 16 : 29
47. On the whole surface of earth the ratio of land and water is 3 : 5. The land and water in Northern hemisphere is 7 : 9. Then what is the ratio of land and water in Southern hemisphere
- A. 6 : 5 B. 5 : 11 C. 9 : 2 D. 3 : 2
48. The ratio of number of boys to the number of girls in the school of 432 pupils is 5 : 4. When some new boys and girls are admitted the number of boys increased by 12

and the ratio of the boys to girls changes to 7 : 6. The number of new girls admitted is

- A. 12 B. 14 C. 24 D. 20

49. In a school there were 1554 students and the ratio of the number of boys and girls was 4 : 3. After few days 30 girls joined the school but few boys left as a result the ratio of the boys and girls became 7 : 6 . The number of boys who left the school is

- A. 86 B. 76 C. 74 D. 84

50. Asema rupees 43601 to be divided among A,B,C and D in the ratio of 3 : 4 : 5 : 8. But it was divided in the ratio $\frac{1}{3} : \frac{1}{4} : \frac{1}{5} : \frac{1}{8}$ by mistake as a result?

A. A received rupees 956 more

B. D received rupees 1144 less

C. B received rupees 318 more

D. C received rupees 132 less

51. The ratio of the present ages of A and B is 6 : 5. 4 years ago this ratio was 5 : 4. what will be the ratio of the ages of A and B after 12 years from now

- A. 3 : 2 B. 8 : 7 C. 9 : 8 D. 7:6

52. Between two consecutive years my income are in the ratio 2:3 and expenses in the ratio 5 : 9. If my income in the second year is rupees 45000 and my expenses in the first year is rupees 25000. my total savings for the 2 years is

- A. 5000 B. 15000 C. 10000 D. Not

53. Two persons Q and R earn in the ratio 2 : 3. They spend in the ratio 9 : 5 and save in the ratio 4 : 7. Find the monthly income of each if the total monthly saving of both Q and R together is rupees 18700

- A. 8400 , 12600 B. 8200 , 12300

- C. 8800 , 13200 D. 8600 , 12900

54. In an examination Rama's score was $\frac{1}{12}$ of the sum of the scores of Mohan and Anjali. After a review the score of each of them increased by 6. The revised scores of Anjali, Mohan and Rama where in the ratio 11:10: 3. Then Anjalis score exceeded Ramas score by

- A. 35 B. 26 C. 32 D. 24

55. Rs. 16562 is divided among 8 men 10 women and 10 children. Each man gets 25% more than each women and each woman gets 25% more than each child. Find the amount received by each woman

- A. 840.5 B. 711.5 C. 591.5 D. 692.5

56. The total number of men women and children working in a factory is 40. They earn rupees 1343 in a day. If the total wages of men to that of women to that of children is in the ratio of 35 : 26 : 18, and if the wages of a man a woman and a children are in the ratio of 7 : 13 : 6, then how much does a child earned in a day
- A. 22.40 B. 37.50 C. 23.50 D. 25.50
57. The income of X y and z are in the ratio of 3:4:2 and their expenses in the ratio of 5 : 5 : 2. If x saves rupees 3000 out of an income of rupees 18000 then what will be the saving of y
- A. 4500 B. 6000 C. 9000 D. 7500
58. The expenditure ratio of A , B and C is 16 : 12 : 9. If they save 20% 25% and 40% of the income, did the total income of A,B and C is rupees 35700. Find their individual income
- A. 14000 , 11200 , 10500
B. 16000 , 12800 , 12000
C. 24000 , 19200 , 18000
D. 18000 , 25000 , 15000
59. The ratio of the numbers of boys and girls in a school was 5 : 3. some new boys and girls were admitted to the school, in the ratio 5 : 7. At this the total number of students in the school became 1200 and the ratio of boys to girls changed to 7 : 5. The number of students in the school before new admission was
- A. 700 B. 900 C. 960 D. 720
60. A gold broke into three parts, the ratio of weight of 3 part is 3 : 4 : 5. The price of gold is directly proportional to its square weight. If there is loss of rupees 23500 after breaking gold then what was the starting price of gold?
- A. 30,000 B. 36,000 C. 40,000 D. 46,000
61. The cost of diamond varies directly with square of its weight. Diamond is broken into three parts whose weight are in the ratio 3:4:5. If diamond had been broken into three part whose weight are in the ratio 9:5:2 then there would have been a further profit of rupees 152000. What is the actual cost of original diamond?
- A. 2592000 B. 1638400 C. 2764800
D. 1843200
62. Invalid they are notes of the denominations 10 and 50 rupees. The total number of notes is 12. The number of 10 rupees and 50 rupees notes are in the ratio of 1:2. Total money in the wallet is
- A. 440 B. 360 C. 280 D. 110
63. There are 50 Paise 25 paise and Rs. 1 coins in a bag in the ratio 5 : 8 : 1. If the total value of all the coins is rupees 55 how many 25 Paise coins are there in the bag
- A. 25 B. 50 C. 80 D. 10
64. A man has few coins of 1 rupee 50 paise and 25 Paise in the ratio $1/2 : 1/3 : 1/4$. If the number of 50 Paise coins is 96 find the total amount of coins
- A. 312 B. 210 C. 220 D. 260
65. There are two pockets A and B. Pocket A contains Rs 1, 50 paise and 25 Paise coins and pocket B contains 50 Paise 25 paise and 10 Paise coins. If the ratio of total amount in A and B is 5 : 4 and coins are in the ratio of 2:3:5 in pocket A and 3: x:8 in pocket B. Find the value of x?
- A. 3 B. 4 C. 5 D. 6
66. Two candles with same length light up at the same time. First candle end in 8 hour and second end in 6 hour. Rate of burning is different for both candles. After start of burning after how much time ratio of their length will be 3 : 1
- A. 4 hr 40 min B. 5 hr 20 min
C. 5 hr 40 min D. 5 hr
67. A man can type 20 lines in 10 minutes but he leaves 8% margin on each time. In how much time he will type 23 pages with 40 lines on each page on which he leaves 25% more margins than before
- A. 7 hr 30 min B. 8 hr 40 min
C. 7 hr 20 min D. 7 hr 15 min
68. A person has some coins of Rs. 10, Rs. 5, and Rs. 2 denominations. The ratio of the products of the number of Rs. 10 and Rs. 5 coins, the number of Rs. 5 and Rs. 2 coins, and the number of Rs. 2 and Rs. 10 coins is 3 : 4 : 2 respectively. What could be the minimum amount of money this person has?
- A. Rs. 52 B. Rs. 68 C. Rs. 88 D. Rs. 74

