

Ratio and Proportion

1. Find the fourth proportional to the no. 18, 24, 27.
(A) 36 (B) 32
(C) 30 (D) 38
2. Find the 3rd proportional to the no. 27 and 54.
(A) 106 (B) 104
(C) 108 (D) 102
3. If $a : b = 3 : 4$, $b : c = 5 : 7$, $c : d = 3 : 5$ then find $a : b : c : d$.
(A) 45 : 50 : 84 : 140
(B) 45 : 60 : 84 : 140
(C) 45 : 60 : 84 : 130
(D) 45 : 60 : 86 : 140
4. If $a : b = \frac{1}{2} : \frac{1}{3}$, $b : c = \frac{1}{4} : \frac{1}{5}$ then find $(a + b) : (b + c)$
(A) 18 : 25 (B) 23 : 18
(C) 25 : 18 (D) 19 : 18
5. $a : (b + c) = 1 : 3$, $c : (a + b) = 5 : 7$ then find $b : (c + a)$.
(A) 2 : 1 (B) 1 : 2
(C) 1 : 3 (D) 1 : 5
6. Two numbers are in the ratio 9:11. If the sum of these numbers is 1980 then find the difference between them.
(A) 198 (B) 194
(C) 192 (D) 196
7. The sum of three numbers is 1375 if the ratio between first and second number is 3:7 and between second and third number is 2:5 find the second number.
(A) 250 (B) 300
(C) 350 (D) 320
8. A box contains Rs. 1, 50 paise and 25 paise coins in the ratio of 5:7:9. If the total amount in the bag is Rs. 430. Then find the number of coins of each type.
(A) 280, 200, 360 (B) 200, 280, 360
(C) 300, 200, 280 (D) 360, 280, 200
9. A box contains 378 coins of Rs, 1, 50 paise and 25 paise. The value of each kind of the coins are in the ratio of 13:11:7 then find the no. of 50 paise coins
(A) 132 (B) 134
(C) 136 (D) 138
10. A bag contains an equal no. of 20p, 25p, and 5p coins. If the total value is Rs. 40 then how many coins of each type are there in the bag?
(A) 30 (B) 50
(C) 40 (D) 60
11. The income of A and B are in the ratio of 9 : 4 and their expenditure in the ratio 7 : 3. If each saves Rs. 2000 find their income.
(A) $A = ₹ 70000$, $B = ₹ 34000$
(B) $A = ₹ 70000$, $B = ₹ 30000$
(C) $A = ₹ 74000$, $B = ₹ 32000$
(D) $A = ₹ 72000$, $B = ₹ 32000$
12. The ratio of income of A and B is 3 : 2 and the ratio of their expenditure is 4 : 3 and their savings are Rs. 2000 and Rs. 1000 respectively. Find income of A and B.
(A) $A = ₹ 6,000$, $B = ₹ 4,000$
(B) $A = ₹ 5,000$, $B = ₹ 4,000$
(C) $A = ₹ 7,000$, $B = ₹ 4,000$
(D) $A = ₹ 9,000$, $B = ₹ 4,000$
13. The ratio of income of A, B and C is 3 : 7 : 4 and the ratio of their expenditure is 4 : 3 : 5. If A saves Rs. 300 out of Rs. 2400 then find savings of C.
(A) 675 (B) 775
(C) 575 (D) 875
14. The ratio of Expenditure of A, B and C are 16, 12 and 9 respectively and their savings are 20%, 25% and 40% respectively of their incomes if the sum of their income is Rs. 1530 then find the income of B.
(A) ₹ 460 (B) ₹ 420
(C) ₹ 440 (D) ₹ 480

15. Total income of A, B and C is Rs. 6060. They expend 80%, 85% and 75% of their income. If ratio of their savings is 5 : 6 : 9. Find the income of A, B and C.
- (A) A = 1500, B = 2400, C = 2160
 (B) A = 1600, B = 2300, C = 2160
 (C) A = 1400, B = 2500, C = 2160
 (D) A = 1700, B = 2300, C = 2160
16. An employer reduces the number of his employee in the ratio 9 : 4 and increases their wages in the ratio 2 : 5. Find whether his bill of total wages increases or decreases and in what ratio ?
- (A) 9 : 10 (B) 10 : 9
 (C) 9 : 11 (D) 11 : 9
17. Two candles of equal length are lighted up at the same time. The first is consumed in 7 hours and the second in 6 hours. Assume that each candle burns at a constant rate then in how many hours after being lighted up the ratio of heights of first and second candle becomes 3 : 1?
- (A) 4 hrs. 36 min (B) 5 hrs. 30 min
 (C) 5 hrs. 36 min (D) 5 hrs. 32 min
18. Two Candles of same length are lighted up at same time. First candle was consumed in 8 hours and the second in 6 hours assuming that each candle burns at a constant rate then in how many hours after being lighted up the ratio of heights of first and second candle becomes 2:1.
- (A) 44 hrs. 44 min (B) 42 hrs. 48 min
 (C) 44 hrs. 48 min (D) 46 hrs. 48 min
19. The cost of gold is directly proportional to square of its weight. A person broke down the gold in the ratio of 3 : 2 : 1 and obtained a loss of Rs. 4620. Then find the initial price of the gold.
- (A) ` 7460 (B) ` 7560
 (C) ` 7360 (D) ` 7580
20. A big diamond breaks into 4 pieces ratio of whose weights is 1 : 2 : 3 : 4 while cost of diamond is directly proportion to square of their weight then its cost decreases by 1,40,000 then find the initial cost of diamond.
- (A) ` 100000 (B) ` 150000
 (C) ` 250000 (D) ` 200000
21. Divide Rs. 1162 into 3 parts such that 4 times the first is equal to 5 times the second and 7 times the third. Find the value of smallest part.
- (A) 240 (B) 260
 (C) 280 (D) 270
22. Divide Rs. 680 among A, B and C such that A gets 2/3rd of B and B gets 1/4th of C. What is the share of C.
- (A) 480 (B) 440
 (C) 460 (D) 490
23. What must be added to two numbers that are in the ratio of 21: 17 so that they become in the ratio of 6 : 5 ?
- (A) 2 (B) 3
 (C) 4 (D) 5
24. Find the number which, when subtracted from the terms of the ratio 19:23 makes it equal to the ratio of 3:4?
- (A) 5 (B) 6
 (C) 7 (D) 8
25. Which least number must be subtracted from each of the term 14, 17, 34, 42 to make them proportional?
- (A) 3 (B) 2
 (C) 4 (D) 5