

Competitive Math by AB sir/7003097346

Ratio and Proportion (Part-2)

1. If $A:B = \frac{1}{2} : \frac{1}{3}$ and $B:C = \frac{1}{5} : \frac{1}{3}$, $A + B : B + C$ is :
(a) 15:16 (b) 16:17 (c) 16:15 (d) 16:19
2. If $\frac{1}{x} : \frac{1}{y} : \frac{1}{z} = 2:3:5$, then $(x : y : z) = ?$
(a) 10:15:6 (b) 15:10:6 (c) 3:5:8 (d) 5:8:15
3. If $A : B = B : C = C : D = 2 : 3$ then $A : B : C : D$ is :
(a) 15:16:10:24 (b) 8:12:18:27 (c) 12:18:27:38 (d) 9:6:18:16
4. P is greater than Q by 60% and greater than R by 30%. The ratio of Q and R is :
(a) 16:13 (b) 5:13 (c) 13:16 (d) 13:18
5. The mean proportion between 9 and 16 is :
(a) 12 (b) 12.5 (c) 5 (d) 10
6. If $\frac{1}{5} : \frac{1}{x} :: \frac{1}{x} : \frac{1}{1.25}$, then $x = ?$
(a) 1.5 (b) 2.5 (c) 3.5 (d) 25
7. If $a : b = 3 : 4$, then $(7a + 3b) : (7a - 3b) = ?$
(a) 5:7 (b) 3:11 (c) 9:11 (d) 11:3
8. If $\frac{\sqrt{x+4} + \sqrt{x-4}}{\sqrt{x+4} - \sqrt{x-4}} = 2$, the find $x = ?$
(a) 8 (b) 10 (c) 5 (d) 6
9. Find the reciprocal ratio of $3 : 4 : 5$.
(a) 20:15:12 (b) 15:11:12 (c) 12:15:20 (d) 17:19:20
10. Find the compound ratio of $2 : 3$, $5 : 4$ and $7 : 10$.
(a) 7:12 (b) 5:7 (c) 8:9 (d) 7:9
11. Rs.6400 are divided among three workers in the ratio $\frac{3}{5} : 2 : \frac{5}{3}$. The share of the second worker is :
(a) 3600 (b) 3000 (c) 3200 (d) 3300
12. Rs.680 is divided among A, B, C such that A gets $\frac{2}{3}$ of what B gets and B gets $\frac{1}{4}$ of what C gets. Then, their shares are respectively :
(a) 90,150,350 (b) 100,200,300 (c) 80,120,480 (d) 60,120,480
13. Rs.355 is divided among A, B, C in such a way that A had Rs.20 more than B and C had Rs.15 more than A. How much was C's share ?
(a) 150 (b) 130 (c) 140 (d) 135
14. Rs.1050 is divided among P, Q, and R such a way that the share of P is $\frac{2}{5}$ of the combined share of Q and R. Thus, P gets :
(a) 150 (b) 300 (c) 200 (d) 350
15. If a carton containing a dozen mirrors is dropped, which of the following cannot be the ratio of broken mirrors to unbroken mirrors ?

- (a) 1:2 (b) 3:1 (c) 2:3 (d) 7:5
16. What number should be added to or subtracted from each term of the ratio 17 : 24 so that it becomes equal to 1 : 2 ?
(a) 15 (b) 25 (c) 18 (d) 10
17. The ratio of present ages of Simi and Seema is 5 : 4. After 9 years the ratio of their ages will be 8 : 7. What is Simi's present age ?
(a) 15 (b) 25 (c) 18 (d) 10
18. The ratio of the age of Ram and Rahim 10 years ago was 1 : 3. The ratio of their age five years hence will be 2 : 3. Then the ratio of their present age is :
(a) 5:3 (b) 5:8 (c) 3:5 (d) 8:13
19. The incomes of A and B are in the ratio 3 : 2 and their expenditures are in the ratio 5 : 3. If each saves Rs.1000 , then A's income is :
(a) 5000 (b) 6000 (c) 4500 (d) 5500
20. The incomes of A and B are in the ratio 5 : 3 and their expenditures are in the ratio 9 : 5. If they save Rs.2600 and Rs.1800 respectively, then their incomes are :
(a) 8000,4800 (b) 6000,4500 (c) 6500,3500 (d) 4500,3000
21. In a regiment the ratio between the number of the officers to Soldiers was 3 : 31 before the battle. In a battle 6 officers and 22 Soldiers were killed and the ratio becomes 1 : 13, the number of the officers in the regiment before the battle was :
(a) 17 (b) 21 (c) 41 (d) 25
22. Three numbers are in the ratio 1 : 2 : 3. By adding 5 to each of them, the new numbers are in the ratio 2 : 3 : 4. The numbers are :
(a) 15,30,45 (b) 20,40,60 (c) 5,10,15 (d) 12,24,36
23. Incomes of A , B and Care in the ratio 7 : 9 : 12 and their expenditures are in the ratio 8 : 9 : 15. If A's saving is $\frac{1}{4}$ of his income, then the ratio of savings of A , B and C is :
(a) 58:95:59 (b) 56:99:69 (c) 99:69:58 (d) 46:99:49
24. Incomes of A , B and Care in the ratio 2 : 3 : 4 and their expenditures are in the ratio 3 : 4 : 5. If A's saving is $\frac{1}{5}$ of his income, then the ratio of their savings :
(a) 13:15:18 (b) 13:6:20 (c) 6:13:20 (d) 5:13:25
25. 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 :
(a) 90 (b) 80 (c) 50 (d) 100
26. There are 480 coins of half rupees, quarter rupees and 10 paise coins and their values are proportional to 5 : 3 : 1. The number of coins in each case are ?
(a) 150,180,150 (b) 200,150,300 (c) 150,200,180 (d) 100,200,300
27. A bag contains one-rupee, 50-paise and 25-paise in the ratio 8 : 9 : 11. If the total money in the bag is Rs.122, find the number of coins of each type.
(a) 48,54,88 (b) 40,45,55 (c) 64,72,88 (d) 72,81,99
28. A bag, there are three types of coins one-rupee, 50-paise and 25-paise in the ratio 3 : 8 : 20. If the total money in the bag is Rs.372. The total number of coins is :
(a) 961 (b) 945 (c) 850 (d) 1000