

# Mental Ability

## Ganit Bodh Series

### Self Evaluation Test -14 (Ratio & Proportion ,Variation and Partnership )

- If Rs 58 is divided among 150 children such that each girl and each boy gets 25 p and 50 p respectively. Then how many girls are there?  
a) 52                                      b) 54  
c) 68                                        d) 62
- What number must be subtracted from both the numerator and the denominator 27 : 35, so that it becomes equal to 2 : 3?  
a) 8                                         b) 12  
c) 6                                         d) None of these
- The speed of three buses are in the ratio 2 : 3 : 4. The ratio between the time taken by these buses to travel the same distance is  
a) 2 : 3 : 4                                b) 4 : 3 : 2  
c) 4 : 3 : 6                                d) 6 : 4 : 3
- The difference between the two positive numbers is 10 and the ratio between them is 5 : 3. Find the product of the two numbers.  
a) 375                                        b) 325  
c) 275                                        d) 125
- If 30 oxen can plough  $\frac{1}{7}$ th of a field in 4 hours, in how many hours will 18 oxen take to do the remaining work?  
a) 30 hours                                b) 20 hours  
c) 15 hours                                d) 40 hours
- Four numbers in the ratio of 1 : 3 : 4 : 7 add up to give a sum of 75. Find the value of the biggest number.  
a) 42                                         b) 35  
c) 49                                         d) 63
- In the above question, what is the different between the biggest and the smallest number?  
a) 42                                         b) 30  
c) 49                                         d) 63
- A and B are two alloys of argentine and brass prepared by mixing metals in proportions 7 : 2 and 7 : 11 respectively. If equal quantities of the two alloys are melted to form a third alloy C, the proportion of argentine and brass in C will be:  
a) 5 : 9                                        b) 5 : 7  
c) 7 : 5                                        d) 9 : 5
- If the ratio of sines of angles of a triangle is  $1 : 1 : \sqrt{2}$ , then the ratio of square of the greatest side to sum of the squares of other two sides is  
a) 3 : 4                                        b) 2 : 1  
c) 1 : 1                                        d) 1 : 2
- Divide Rs 1870 into three parts in such a way that half of the first part, one-third of the second part and one-sixth of the third part are equal.  
a) 241, 343, 245  
b) 400, 800, 670  
c) 470, 640, 1160  
d) None of these
- A crew can row a certain course up the stream in 84 minutes; they can row the same course down stream in 9 minutes less than they can row it in still water. How long would they take to row down with the stream.  
a) 45 or 23 minutes  
b) 63 or 12 minutes  
c) 60 minutes  
d) 19 minutes
- If 4 examiners can examine a certain number of answer books in 8 days by working 5 hours a day, for how many hours a day would 2 examiners have to work in order to examine twice the number of answer books in 20 days.  
a) 6    b)  $7\frac{1}{2}$   
c) 8    d) 9
- In a mixture of 40 litres, the ratio of milk and water is 4 : 1. How much water must be added to this mixture so that the ratio of milk and water becomes 2 : 3.  
a) 20 litres                                b) 32 litres  
c) 40 litres                                d) 30 litres
- If three numbers are in the ratio of 1 : 2 : 3 and half the sum is 18, then the ratio of squares of the numbers is:  
a) 6 : 12 : 13                                b) 1 : 2 : 4  
c) 36 : 144 : 324                            d) 3 : 5 : 7
- If 30 men working 7 hours a day can do a piece of work in 18 days, in how many days will 21 men working 8 hours a day do the same work?  
a) 24 days                                b) 22.5 days  
c) 30 days                                d) 45 days
- 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 can be:  
a) Rs. 3000                                b) Rs. 4000  
c) Rs. 6000                                d) Rs. 9000
- P is directly proportional to Q, and Q = 7 when P = 15, find P when Q = 14.  
a) 36                                         b) 54  
c) 30                                         d) 60
- The concentration of three milk solutions A, B and C are 10%, 20% and 30% respectively. They are mixed in the ratio 2 : 3 : N resulting in a 23% concentration solution. Find N.  
a) 7    b) 6  
c) 5    d) 4
- If the ratio of the ages of Maya and Chhaya is 6 : 5 at present, and fifteen years from now, the ratio will get changed to 9 : 8, then find Maya's present age.  
a) 24 years                                b) 30 years  
c) 18 years                                d) 33 years
- Divide Rs. 680 among A, B and C such that A gets  $\frac{2}{3}$  of what B gets and B gets  $\frac{1}{4}$ th of what C gets. Now the share of C is ?  
a) Rs. 480                                b) Rs. 300  
c) Rs. 420                                d) Rs. 360