1. The average salary of 12 officers in a factory is Rs. 3950 per month and that of other employees of the factory is Rs. 1850 per month. If the average salary of all employees (including the officers) of the factory be Rs. 2150 per month, find the total number of employees in the factory.

2. In a class there are 40 boys and their average age is 16 years. One boy aged 17 years leaves the school and another joins, and their average age becomes 15.95 years. What is the age of the new boy

3. The average weight of 29 students is 40 kg. If the weight of teacher be included, the average weight is increased by 300 gms. The weight of the teacher is:

4. The difference between the ages of two sisters is half the difference between the ages of their parents. The elder sister is 18 years of age. Their father's age was 32 years when the younger sister was born who is now 15 years old. What is their mother's age?

5. The average of five results is 46 and that of first four is 45. Find the value of the fifth result.

6. Out of three numbers, the first is twice of the second and is half of the third. If the average of three numbers is 56, find the largest number.

7. The average of three numbers is 42. The first is twice the second and the second is twice the third. What is the difference between the largest and the smallest number?

8. The average age of three boys is 15 years. If their ages are in the ratio 3: 5: 7, what is the age of the youngest boy?

9. a, b, c, d and e are five consecutive odd numbers. What is their average?

10. The average height of 30 girls out of a class of 40 is 160 cms and that of the remaining girls is 156 cms. What is the average height of the whole class?

11. The average of 50 numbers is 38. If two numbers, namely 45 and 55 are discarded, what is the average of the remaining numbers?

12. The average of 25 results is 18; that of first twelve is 14 and of last twelve is 17. Find the thirteenth result.

13. The average of ten numbers is calculated as 15. It was discovered later on that while calculating the average one number namely 36 was wrongly read as 26. Find the correct average.

14. Out of four numbers, the average of first three is 15 and that of last three is 16. If the last number is 19, find the first number.

15. The average of 6 observations is 12. A new seventh observation is included and the new average is decreased by 1. Find the seventh observation.

16. Four numbers are in proportion. The sum of the squares of the four numbers is 50 and the sum of the means is 5. The ratio of first two terms is 1 : 3. What is the average of the four numbers?

17. A naughty student breaks the 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 part to the original length of pencil

18. If $(x + y) / (x - y) = 5 / 3$ and $x / (y + 2) = 2$, then the value of (x, y) is

19. If $a^3 + b^3 : a^3 - b^3 = 133 : 117$; then find the value of $a : b$

20. A student obtained equal marks in History and Sociology. The ratio of marks in Sociology and Geography is 2 3: and the ratio of marks in History and Philosophy is 1: 2. If he has scored an aggregate of 55% marks. The maximum marks in each subject is same. In how many subjects did he score equal to or greater than 60% marks?

21. The ratio of income of Anil and Mukesh is 2 : 3. The sum of their expenditure is `8000 and the amount of savings of Anil is equal to the amount of expenditure of Mukesh. What is the sum of their savings?

22. Hutch and Essar entered into a partnership just 5 months ago. The ratio of profit claimed by Hutch and Essar is 6 : 17. If Essar had just started his business 12 months ago with `1275, what is the amount contributed by Hutch?

23. A child has three different kinds of chocolates costing `2, `5 and `10. He spends total `120 on the chocolates. What is the minimum possible number of chocolates, he can buy, if there must be at least one chocolate of each kind?

24. In the previous problem (no. 8) what is the maximum possible no. of chocolates?

25. Mr. Teremere and Mr. Meretere have 5 chocolates and 3 chocolates with them respectively. Meanwhile Mr. Khabbu Singh joined them and all 8 chocolates were distributed equally among all these three people. In turn Khabbu Singh gave `16 to Mr. Teremere and Mr. Meretere, since Khabbu Singh did not has any chocolate. What is the difference of amounts received by Teremere and Meretere? Given that the amount was shared in proportion of chocolates received by Khabbu Singh.

26. `4536 is divided among 4 men, 5 women and 2 boys. The ratio of share of a man, a woman and a boy is 7 : 4 : 3. What is the share of a woman?

27. The concentration of petrol in three different mixtures (petrol and kerosene) is 1 / 2 , 3 / 5 , 4 / 5 , and respectively. If 2 litres, 3 litres and 1 litre are taken from these three different vessels and mixed. What is the ratio of petrol and Kerosene in the new mixture?

28. Time period (T) of pendulum is directly proportional to the square root of length of string by which bob is attached to a fixed point and inversely proportional to the square root

of gravitational constant 'g'. Time period of a bob is 3 seconds when the gravitational constant g is 4 m/sec^2 and length of string is 9 metre, what is the time period of a bob having a string of length 64 metre and gravitational constant 16 m/sec^2?

29. In a milk shoppe there are three varieties of milk, 'Pure', 'Cure' and 'Lure'. The 'Pure' milk has 100% concentration of milk. The ratio of milk is to water in the 'Cure' is 2 : 5 and in the Lure it is 3 : 8 respectively. Sonali purchased 14 litres of Cure and 22 litres of Lure milk and mixed them. If she wanted to make the concentration of milk in the mixture of purchased milk to 50%. How many litres of 'Pure' milk she is needed?

30. In the squadron of Indian Air Force the ratio of Sukhoi is to Mig and Jaguar together is 5 : 7 and the ratio of Jaguar is to Sukhoi and Mig together is 1 : 2. Find the ratio of Sukhoi and Mig

31. Which of the following is the largest number? (a) 20% of 200 (b) 7% of 500 (c) 1300% of 3 (d) 700% of 9

32. If 25% of a number is 75, then 45% of that number is:

33. What is 20% of 50% of 75% of 70?

34. If we express 41(3/ 17)% as a fraction, then it is equal to

35. Mr. Abhimanyu Banerjee is worried about the balance of his monthly budget. The price of petrol has increased by 40%. By what percent should he reduce the consumption of petrol so that he is able to balance his budget?

36. Ram sells his goods 25% cheaper than Shyam and 25% dearer than Bram. How much percentage is Bram's goods cheaper than Shyam's?

37. In an election between 2 candidates, Bhiku gets 65% of the total valid votes. If the total votes were 6000, what is the number of valid votes that the other candidate Mhatre gets if 25% of the total votes were declared invalid?

38. In a medical certificate, by mistake a candidate gave his height as 25% more than normal. In the interview panel, he clarified that his height was 5 feet 5 inches. Find the percentage correction made by the candidate from his stated height to his actual height.

39. Arjit Sharma generally wears his father's coat. Unfortunately, his cousin Shaurya poked him one day that he was wearing a coat of length more than his height by 15%. If the length of Arjit's father's coat is 120 cm then find the actual length of his coat.

40. A number is mistakenly divided by 5 instead of being multiplied by 5. Find the percentage change in the result due to this mistake.

Name : _____

Batch : _____

1		2		3		4		5	
6		7		8		9		10	
11		12		13		14		15	
16		17		18		19		20	
21		22		23		24		25	
26		27		28		29		30	
31		32		33		34		35	
36		37		38		39		40	