AVERAGE

Direction: Read the following questions carefully and choose the right answer.

1. The age of Abhi, 7 years from now, will be 25% more than the age of Sunny 5 years hence. 5 years ago the average of age of Abhi's father and Abhi was 23 years. Abhi was 4 years old when Sunny was 1 year old. What will be the age of Abhi's father when Sunny was 10 years old?

A.34 years B.32 years C.40 years D.33 years E. 38 years

2. From a class of 50 students numbered 1, 2, 3, 50, some students were selected randomly for republic day parade but condition was that the number should be either multiple of 2 or multiple of 5. The average weight of all the students who were not selected was 56 kg and the average weight of all the students who were selected was 58 kg. What was the average weight (in kg) of the class?

A. 57.8 B. 57.2 C. 56.9 D. 57.6 E. None of these

3. Six students take an exam two times. The increase in average marks of all the students from first test to second test is 30%. The difference of the total marks of first five students in the two tests is 20% of their total marks in second test. If in the first test the marks of the sixth student were mistakenly written 1/9 times more than the original, what is the actual percentage increase in his marks?

A. 57% B. 100% C. 72.22% D. 80 E. None of these

4. Karan calculates the average of his marks in five subjects. By mistake he writes number of two subjects as reverse of original marks thereby increasing the average by 27 marks. If the incorrect numbers are in the ratio 13:10, what is the sum of the original numbers? (The marks awarded are from 01, 02 ... to 99)

A. 35 B. 31 C. 43 D. 26 E. None of these

5. There are four sisters Bhavna, Geeta, Simran and Sania. The age of Sania is (x - 5) years. The ratio of the age of Sania 5 years hence to the age of Geeta 2 years before is 5 : 4 . The ratio of the age of Bhavna 1 year before to the age of Sania 3 years hence is 1 : 4. Sania is 7 years older than Geeta, then find the age of Simran whose age is 1 year less than average age of other 3 sisters.

A.38 years B. 46 years C. 40 years D. 39 years E. 44 years

6. Average weight of group of four persons P, Q, R and S is 67 Kg. If Q is excluded from the group and another person T is included in the group then average weight decreases by 4 kg. If the average weight of T and P is 58 kg and weight of T is 18 kg more than the weight of P, then find the average weight of Q and T.

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A. 77 kg B. 68 kg C. 79 kg D. 72 kg E. 75 kg
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7. The average marks in English scored by the students of a school in the Olympiad exam was 48. If 4 of these students who actually scored 5, 7, 9 and 11 are not counted, the average marks for the school in the Olympiad exam would have been 50. Find the number of students sent for the Olympiad by the school.

A. 52 B. 84 C. 88 D. 90 E. 82

8. The present average age of three friends Sonia, Alia and Varun is 76/3 years. The ratio of age of Sonia 2 years hence and age of Alia 4 years hence is 9 : 7 respectively, and the ratio of age of Alia 3 years ago and age of Varun 4 years ago is 3 : 2 respectively. Find the present age of Alia.

A. 18 years B.34 years C. 24 years D. 28 years E. None of these

9. A man purchases three items from a shop. He got one item gift wrapped for Rs12. He paid a total of Rs 312 and shopkeeper made a profit of 11.11% on the cost price of all the three items together. The average cost price of the other two items is Rs 75. The gift item was sold at a profit of 25% after a discount of 16.67%. What is the marked price of gift wrapped item?

A. Rs. 196 B. Rs. 180 C. Rs. 172 D. Rs. 204 E. None of these

10. There are four identical glasses which have water in them. The volume of water in four glasses is 30%, 35%, 88% and 99%. The glasses are emptied in an empty container and then the same container is used to fill 60% volume of each glass with water. If the remaining water in container is 60ml, what is the final total quantity of water in all the four glasses?

A. 1800 ml B. 1200 ml C. 1500 ml D. 1260 ml E. I	. None of these
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11. A salesman sells 10 Notebooks on Monday, 13 Notebooks on Tuesday, 12 Notebooks on Wednesday, 11 Notebooks on Thursday and 12 Notebooks on Friday. If the salesman is paid Rs. x for selling every 10 Notebooks and Rs. y for selling every extra Notebook, then find the average of daily earning of the salesman in rupees for the five days?

A.
$$x + \frac{8}{5}y$$
 B. $\frac{5x + 9y}{5}$ C. $10x + \frac{8}{5}y$ D. $5x + 8y$ E. None of these

12. The average height of 3 boys Bikesh, Sam and Suhas is 208/3 inches while the average height of Bikesh, Vihal and Rakesh is 203/3 inches. What is the average height of Bikesh, Sam, Suhas, Vihal and Rakesh?

A. 65 inches B. 66 inches C. $\frac{197}{3}$ inches D. 64 inches E. Can't be determined

13. Aman goes to park daily. His last week average speed with which he completed one round of the park was 47Km/h, for the first four days was 37Km/h, and that for the last four days was 52.5Km/h. Find out the time taken by Aman to travel 203 Km if he travels with the speed of the fourth day.

A. 7 hours B. 8 hours C. 6 hours D. 5.5 hours E. None of these

14. In an office some persons are officers and some are non-officer. The number of officers is 30. The average salary of officers is Rs.1040 and that of non-officers is Rs.400. If the average salary of entire staff in office (officers + Non – officers) is Rs.500 per month, then what is the average of total number of employees (officers + Non – officers) in the office?

A. 49 B. 89 C. 92 D. 96 E. None of these

15. An exam was conducted in a state over 222 centers. The average number of applicants per centre was found to be 1560. However, it was later realized that in one centre, the number of applicants was counted as 1857 instead of 1747. What was the correct average number of applicants per centre (upto two decimals)?

A. 1557.87 B. 1558.20 C. 1558.92 D. 1559.51 E. 1559.78

16. The average of fifteen numbers is 54. If the sum of first six numbers is 126, the average of the next six numbers is 46 and the 14th and 15th numbers exceed the 13th number by 15 and 18 respectively, then the 14th number is

A. 130 B. 140 C. 135 D. 142 E. 125

17. A, B, C, D and E are five persons. The weight of A, B and C is 90%, 112% and 94% respectively of the average weight of all five. The ratio of weight of D and E is 6 : 11. The difference between the weight of D and E is 75kg. What is the average weight of al the five persons?

A. 84 kg B. 90 kg C. 76 kg D. 69 kg E. None of these

18. Average marks obtained in English by 17 girls of a class is 35. The marks obtained by them is arranged in ascending order form and in Arithmetic progression. If the marks obtained by the 2nd ,6th ,9th ,12th and 16th position are removed from the table, then find the new average of marks obtained by the remaining girls in English.

A. 33 B. 35 C. 37 D. Can't be determined E. None of these

19. Average marks of group of students is 48. Out of these, 3 students with marks 43, 68 and 51 are removed and a new student with a score of 84 is added to the list. If the number of students in the group was 8, then find the percentage increase in the average marks with respect to the initial average?

- 20. 'N' is the number employees in a Bengaluru based IT company. The average age of employees working in the company is 35 years. What will be the average age of these employees in next two years when 10 employees will retire. Given that, retirement age is 60 years and N = 40.
 - A. $\frac{87}{13}$ B. $\frac{83}{7}$ C. $\frac{86}{13}$ D. $\frac{86}{3}$ E. None of these
- 21. Rajiv decided to go for a dinner with his 12 friends. He paid Rs. 145 and each of his friends paid some equal amount. They later found out that the average amount that should be paid by all of them was 5 more than what was actually paid by each of his friends. How much money did each of his friend pay?

A. Rs. 80 B. Rs. 90 C. Rs. 150 D. Rs. 100 E. None of these

22. A family has 5 members, Father, mother and their three children. The average age of family immediately after the birth of first, second and third child was 16, 15.75 and 14.2 years respectively. What is the age of elder child, if the present age of entire family is 15.2 years?

A. 6 yeearsB. 7 yearsC. 8 yearsD. 5 yearsE. 4 years

23. Average of Eight numbers is 75. If highest and lowest number is removed then average becomes 80. If the ratio of highest number to lowest number is 3 : 1, then highest number is what percent of sum of the all the eight numbers?

A. 12% B. 20% C. 18% D. 24% E. 15%

24. On the occasion of teacher's day, some number of boys and girls contributed some money. The average contribution of boys was Rs. 250 and that of girls was Rs. 100. If the average contribution per student was Rs. 160 on the whole then what percent of students are boys?

A.60% B. 44% C. 40% D. 80% E. None of these

25. The average number of chocolates that some number of boys have is 240 and average number of chocolates that some number of girls have is 180, . If each of the boys eat 10 chocolates then the average number of chocolates with all the students become 200. The total number of boys is what percentage of the total number of students?

 A. 75%
 B. 40%
 C. 60%
 D. 62.5%
 E. None of these

26. In company ABC, the best performing team won bonus. The captain of the best performing team who got highest bonus of 20 % was equal to the 4 times of what rest of his team members got. Find the team size who won bonus.

A. 20 B. 16 C. 17 D. 22 E. None of these

- 27. The average of 15 numbers is 26. If each number is first multiplied by 6 then increased by 6 then find the new average.
 - A. 122 B. 38 C. 162 D. 96 E. None of these

28. The average expenditure of Vivek from June to November is Rs. 8550 and he spent Rs. 1850 in June and Rs.2420 in December. The average expenditure from July to December is?

A. Rs. 8640 B. Rs. 8645 C. Rs. 8650 D. Rs. 8675 E. None of these

29. The average weight of 10 persons was increased by 2.5 kg when Ram comes in place of Mohan but if Sohan comes in place of Mohan then the average weight of the 10 persons was increased by 3.5 kg. If the weight of Mohan is 55 kg then what is the average weight of Ram, Mohan, and Sohan?

A. 65 kg B. 70 kg C. 75 kg D. 80 kg E. None of these

30. The average age of a family is 35 years. After 10 years, twins were born in the family then the average age of the family becomes 36 years. How many members are there in the family except twins?

A. 9 B. 7 C. 6 D. 10 E. None of these

31. The average price of 5 pens and 15 pencils is Rs. 8.5 . The price of 4 pens is Rs. 3 more than the price of 7 pencils. What will be the average price of 7 pen and 5 pencils?

A. Rs. 10 B. Rs. 11 C. Rs. 12.5 D. Rs. 10.5 E. None of these

32. The average height of the first six students is 170 cm, the average height of the last eight students is 175 cm. The average height of the total 16 students is 180 cm. Find the average height of the rest two students.

A. 210 cm B. 250 cm C. 240 cm D. 230 cm E. 260 cm

33. The average salary of each trainee in an startup is Rs. 90. The average salary of 16 trainees is Rs.708.75 and the average salary of the rest is Rs. 75. How many trainees does the startup have?

A. 670 B. 676 C. 682 D. 840 E. None of these

34. In a hostel, food is available for 200 students for 50 days. After 10 days, 50 more students join the hostel. For how many more days will the food last?

A. 42 days B. 32 days C. 30 days D. 40 days E. None of these

35. The average weight of five friends P, Q, R, S, and T is (x + 6) kg while the average weight of R and T is (x − 6) kg. If the weight of another person U is also added, then average weight of all of them is reduced by 5 kg. Find the value of 'x' if average weight of P, Q, S and U is 94.5 kg.

A. 74 B. 80 C. 84 D. 90 E. 94

36. Average age of a class of 15 students is 24 years. Average age of the class is increased by 2 years when the age of the class teacher and principal is added. If the difference between the ages of the class teacher and principal is 18 years, then find the age of class teacher.

A. 32 years B. 38 years C. 44 years D. 50 years E. Can't be determined

37. Salary of Gaurav is 166.67% of his brother Aman. Aman and Gaurav gave their salary of "x" months and "y" months respectively to their father. Their father distributed the total amount equally between them such that each of them receives Rs. 126000. If the ratio of x and y is 5:4, what is difference of the total amount given Aman and Gaurav to their father?

A. Rs. 35800 B. Rs. 32000 C. Rs. 36200 D. Rs. 36000 E. None of these

38. A, B and C are brothers and they give the total amount of money with them to their father who distributes the total money equally between them such that each one of them gets Rs 480. After distribution the money with A becomes 75%, money with B becomes 12/13 and that with C increases by 500/7 % of their respective initial amount. What was the difference between the original amount of money with A and C?

A. Rs. 380 B. Rs. 360 C. Rs. 420 D. Rs. 300 E. None of these

39. The weight of Varun , Rahul and Priyanka in 2011 was is in the ratio 6 : 5 : 7. In 2016 weight of Varun became 150%, weight of Rahul became 160% and the weight of Priyanka increased by 300/7 % as compared to their weight in 2011. If the average increase in their weight is 7.2kg, what is the difference between the weight of Varun in 2016 and the weight of Priyanka in 2011?

A. 5.0 kg B. 4.8 kg C. 5.2 kg D. 4.6 kg E. None of these

40. The weight of A, B and C is recorded and their recorded weight is in the ratio 13 : 6 : 5 respectively. The average recorded weight of all three came out to be 56kg. Later it was noticed that weight of A was written 44.44% more, weight of B was written 14.28% less and weight of C was written 33kg more. What is the original average weight of three friends?

A. 38 kg B. 36 kg C. 42 kg D. 44 kg E. None of these

41. Average temperature from Sunday to Wednesday is 34° C while average temperature from Wednesday to Saturday is 38°C. Average temperature throughout the week is 36°C. Find the temperature on Wednesday.

A. 36°C B. 38°C C. 34°C D. 32°C E. None of these

42. The average weight of 65 students in a class was calculated as 32 kg. It was later found that the weight of two students in the class was wrongly calculated. The actual weight of one of the girls in the class was 26 kg, but it was calculated as 30 kg and the weight of a boy in the class was 42 kg whereas it was calculated as 36 kg. What is the actual average weight of the 65 students in the class?

- 43. Average weight of 45 students of a class is 40. Two new students joined the class and average weight of the class decreased by 1 Kg. Find the average weight of the two new students.
 - A. 16.5 kg B. 15.4 kg C. 14.2 kg D. 13.7 kg E. None of these
- 44. Average of a set of five consecutive even numbers is 48. Average of another set of five consecutive odd numbers is 49. Find the product of smallest even number of the first set and largest odd number of the second set.

A. 3223 B. 2323 C. 3232 D. 2332 E. None of these

45. The average age of a group of 30 friends is 34 years. The average age of the first 10 friends is 31 years and the average age of the last 18 friends is 33 years. What will be the average age of the 11th and 12th friend?

A. 52 years B. 54 years C. 56 years D. 50 years E. 58 years

- **46.** A sequence contains eleven terms, which are consecutive even integers. The average of the second and the seventh term is 15. Find the average of all the terms.
 - A. 15 B. 16 C. 17 D. 18 E. None of these
- 47. The average weight of a group of (x 4) students is (x + 5) kg. If a teacher of weight 54 kg joins the class, then average weight of the group is increased by 1 kg. Find the strength of the group excluding the teacher.
 - A. 22 B. 25 C. 29 D. 34 E. 38
- 48. In Vrindavan Housing Society the monthly society expenditure has a fixed and a variable component, such that the variable component depends on the number of members in the society. If there are 50 members, then each member has to pay Rs. 110 and if there are 30 more members then each member has to pay Rs. 80. If each member pays Rs. 130, then how many members are there in the society?

A. 45 B. 55 C. 40 D. 60 E. None of these

49. The average age of 40 participants of a quiz is 20 years. After some time 5 more participants joined them and then average age is increased by 3 years. Find the average age of the 5 new participants.

A. 47 yearsB. 48 yearsC. 50 yearsD. 45 yearsE. 46 years

50. Ronny in his football career, scored 12 goals on an average in 10 matches. If he scored 11 goals on an average in first 4 matches and 13 goals on an average in the last 4 matches, then find the average of the goals scored by him in the remaining 2 matches.

A. 11 goalsB. 12 goalsC. 13 goalsD. 10 goalsE. 9 goals

ANSWERS

1	D	11	А	21	А	31	D	41	А
2	В	12	E	22	С	32	D	42	В
3	С	13	А	23	E	33	В	43	А
4	D	14	D	24	С	34	В	44	D
5	В	15	D	25	В	35	D	45	E
6	E	16	В	26	С	36	E	46	D
7	В	17	E	27	С	37	D	47	А
8	С	18	В	28	В	38	В	48	С
9	В	19	А	29	С	39	В	49	А
10	В	20	E	30	E	40	Α	50	В