

CHAPTER: AVERAGE

Topics to be covered with examples:

- Concept of average.
- Weighted average concept.
- Average of numbers, variables, terms, expressions.
- Sum of n natural numbers and their average.
- Word problems interpretation and solving.

Q.1. The average age of 30 boys of class is equal to 14yrs. When the age of the class teacher is included the average becomes 15 yrs. Find the age of the class teacher?

A. 45 yrs B. 48 yrs C. 40 yrs D. 50 yrs

Q.2. The average of marks obtained by 120 candidates in a certain examination is 35. If the average marks of passed candidates is 39 and that of the failed candidates is 15, what is the number of candidates who passed the examination?

A. 90 B. 100 C. 95 D. 80

Q.3. The average of the 8 persons in a committee is increased by 2 years, when 2 men aged 35 years and 45 years are substituted by 2 women. Find the average age of these 2 women?

A. 50 yrs B. 45 yrs C. 48 yrs D. 40yrs



Q.4. The average score of a cricketer in two matches is 27 and in three other matches is 32. Then find the average score in all the five matches?								
A. 40	B. 45	C. 50	D. 30					
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Q.5. In a class, there are 20 boys whose average age is decreased by 2 months, when one boy aged 18 years is replaced by a new boy.								
Find the age of the new boy?								
A. 14 yrs 8 months B. 15 yrs 6 months C. 12 yrs 5 months D. 16yrs 8 months								
Q.6. A cricketer has completed 10 innings and his average is 21.5								
runs. How many runs must he make in his next innings so as to raise his average to 24?								
A.49	B. 45	C. 40	D. 50					
Q.7. A train travels from A to B at the rate of 20 km per hour and from B to A at the rate o 30 km/hr. what is the average rate for the whole journey?								
A. 28 km/hr 30 km/hr	В. 24	km/hr	C. 20 km/hr	D.				



Q.8. In an examination, a batch of 60 students made an average score of 55 and another batch of 40 students made it only 45. What is the overall average score?						
A. 52 None of these	B. 40	C. 51	D. 56	E.		
student obtains- A. 80 B. 7 None of these	ned 80 mark	s in the 5 th s	n four subjects is ubject then the D. 95	new average E.		
Q.10. The average of first 61 natural numbers is-						
A. 30 None o these	В. 30.5	C. 31	D. 32	E.		

Q.11. In an exam, the average was found to be 50 marks. After deducting computation errors the marks of the 100 candidates had to be changed from 90 to 60 each and the average came down to 45 marks. The total students are –

A. 300

B. 600

C. 200

D. 150

E.

None o these



Q.12. The average age of a group of 16 persons is 28 yrs and 3 months. Two persons each 58 yrs old left the group. The average age of the remaining persons is-

A. 26

B. 24

C. 22

D. 20

E. None of these

Q.13. The average weight of 50 balls is 5 gm. If the weight of the bag be included the average weight increases by 0.05 gm. What is the weight of the bag?

A. 5.05

B. 60.5

C. 70.5

D. 7.55

E. None o these

Q.14. The average age of a group of 10 students is 15 yrs. When 5 more students joined the group the average age rose by 1 yr. The average age (in years) of the new students is-

A. 18 yrs B. 17 yrs C. 16 yrs D.12 yrs E. None o these

Q.15. The average weight of 8 persons is increased by 2.5 kg when one of them who weight 56 kg is replaced by a new man. The weight of the new man is-

A. 73 kg B. 72 kg C. 75 kg D.80 kg E. None o these



Q.16. The average weight of A, B and C is 84 kg. If D joins the group, the average weight o the group becomes 80 kg. If another man E who weighs 3 kg more than D, replaces A, then the average of B, C, D, and E becomes 79 kg. What is the weight of A?

A. 64 kg B. 72 kg C. 75 kg D. 80 kg E. None o these

Q.17. The average of 11 results is 50. If the average of first 6 results is 49 and that of last 6 is 52, find the 6th result-

A. 50 B. 52 C. 56 D. 60 E. None o these

Technocrats

Q18. If the average of 7 consecutive odd number is 21, what is the difference between the smallest and the largest number?

a)10 b)11 c)12

d)14 e)none

Q19. A batsman had an average of 60 run in 9 inning, but in the 10th inning, he was out on zero, what is the average after 10th inning?

a)51 b)53 c)54

d)55 e)none





Q20. A batsman in his 15 th inning make	es a score of 90 and thereby
increases his average by 4. What is the	average after 15 th inning?

a)27 b)37 c)30

d)34 e)none

Q21. Ricky average on 4 test is 80. Assuming he can earn no more than 100 on any test. What is the least he can earn on his fifth test and still have a chance for an 85 average after seven test?

a)60 b)70 c)75

d)80 e)none

Q22. The marks obtained by 4 subjects in an exam are in the ratio 5:6:7:8. The maximum marks that can be secured in any subject are 100, and the marks scored in each scored in each subject are integers. If he has obtained 80 marks in one of the subjects, find his average marks.

a)60 b)65 c)55

d)66.67 e)none

Q 23 The average age of 80 girls was 20 years, the average age of 20 of them was 22 years and that of another 20 was 24 years. find the average age of remaining girls?

A. 17 years B. 19 years C. 21 years

D. 15 years E none of these



Q24. The average age of 7 men is increased by 2 years when two of them whose age are 22 years and 26 years are replaced by two new men. The average age of the two new men is?

a)22 b)24 c)31 d)30 e)none

Q25. There were 40 students in a hostel. If the number of students increases by 8, the expense of the mess increase by Rs 48 per day while the average expenditure per head diminishes by Rs2. Find the original expenditure of the mess?

a)700 b)710 c)680 d)720 e)none b c c

Quality Beyond Imagination

Q26. The average of 100 observations was calculated as 30. It was found later on that one of the observations was misread as 76 instead of 46. Find the correct average is?

a) 40.3 b)39.7 c)29.7

d)30.3 e)none



Q27. Sales for December and January each are twice the yearly average. Sales for June and may each are half the yearly average. Find the difference of average sales in the rest of the eight months and the sales in June (in term of average sales per month)

a) $\frac{3}{8}$ b) $\frac{7}{4}$ c) $\frac{5}{8}$ d) 1 e)none

Q28. The average age of a group of men is increased by 5 years when a person aged 18 years is replaced by a new person of aged 38 years. How many men are there in group?

Quality Beyond Imagination

Q29. The average weight of a class of 34 students is 45kg. if the weight of the teacher is included, the average rise by 400g. the weight of the teacher is?

a)59 b)50 c)53 d)55 e)none