

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**

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. 16 yrs 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 of 30 km/hr. what is the average rate for the whole journey?

- A. 28 km/hr B. 24 km/hr C. 20 km/hr D. 30 km/hr**

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 B. 40 C. 51 D. 56 E.**
None of these

Q.9. The average marks of a student in four subjects is 75. If the student obtained 80 marks in the 5th subject then the new average is-

- A. 80 B. 76 C. 92 D. 95 E.**
None of these

Q.10. The average of first 61 natural numbers is-

- A. 30 B. 30.5 C. 31 D. 32 E.**
None o these

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**

a)51 b)53 c)54
d)55 e)none

A. 17 years **B. 19 years** **C. 21 years**
D. 15 years **E none of these**

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

- a)700 b)710 c)680
d)720 e)none
- Tech n o c r a t s

- 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?

- a) 3 b) 4 c) 5 d) 6
e) none

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