

1. The average of first ten prime numbers is:

- A. 10.1
- B. 10
- C. 12.9
- D. 13
- E. None of these

2. The average of all odd numbers less than 100 is:

- A. 49.5
- B. 50
- C. 50.5
- D. 51
- E. None of these

3. The average of nine consecutive numbers is n . If the next two numbers are also included, then the new average will:

- A. increase by 2
- B. remain the same
- C. increase by 1.5
- D. increase by 1
- E. None of these

4. If average of 20 observation x_1, x_2, \dots, x_{20} is y , then the average of $x_1-101, x_2-101, x_3-101, \dots, x_{20}-101$ is:

- A. $y-20$
- B. $y-101$
- C. $20y$
- D. $101y$
- E. None of these



5. The average of n numbers x_1, x_2, \dots, x_n is \bar{x} . Then the value of $\sum_{i=1}^n (x_i - \bar{x})$ is equal to

- A. n
- B. 0
- C. $n\bar{x}$
- D. x
- E. None of these

6. The average of x numbers is y^2 and the average of y numbers is x^2 . Find the average of all the numbers taken together.

- A. $\frac{x^3 + y^3}{x + y}$
- B. xy

$$\frac{x^2 + y^2}{x + y}$$

- C. $\frac{x^2 + y^2}{x + y}$
D. $xy^2 + yx^2$
E. None of these

7. If the average of m numbers is n^2 and that of n numbers is m^2 . Then find the average of $(m + n)$ numbers.

- A. $\frac{m}{n}$
B. $m + n$
C. mn
D. $m - n$
E. None of these

8. Fifteen movie theatres average 600 customers per theatre per day. If six of the theatres close down but the total theatre attendance stays the same, then the average daily attendance per theatre among the remaining theatres is:

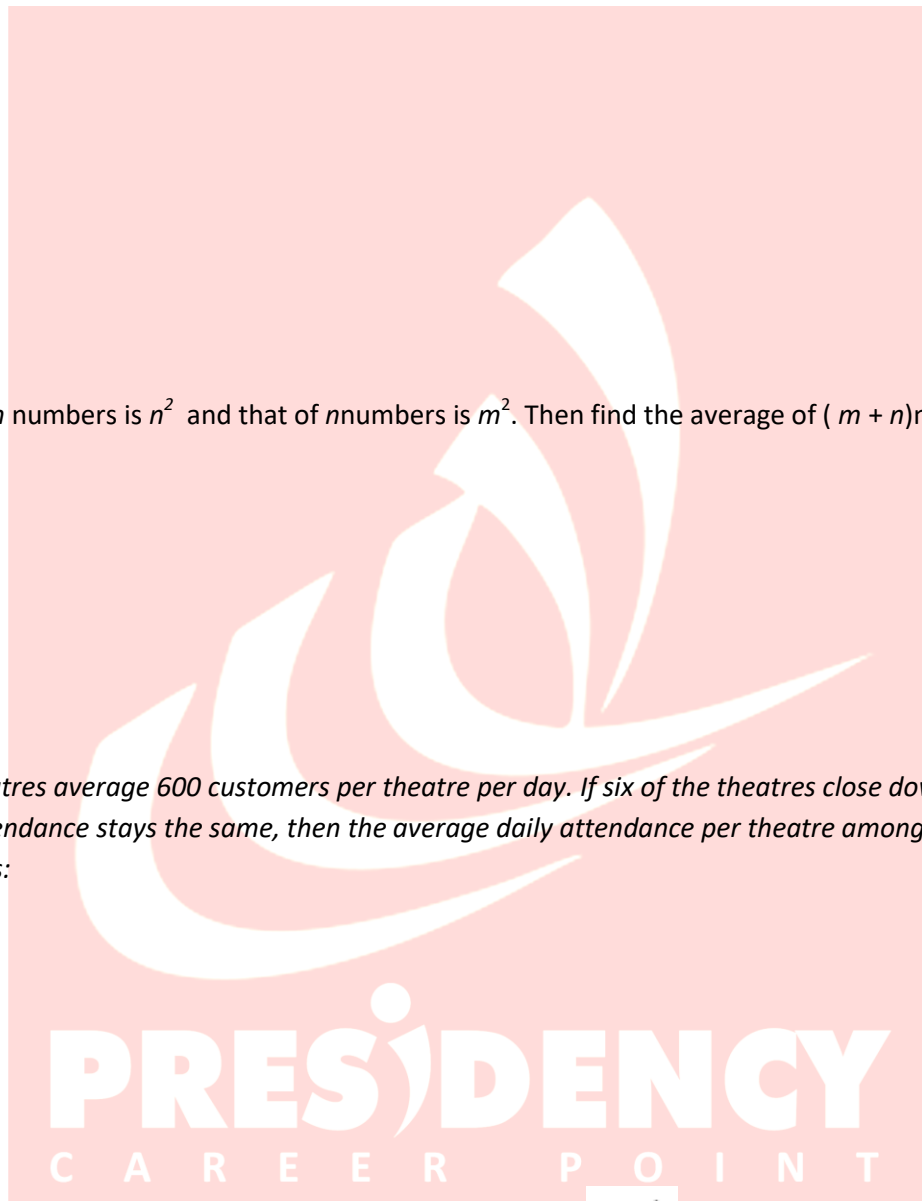
- A. 900
B. 1000
C. 1100
D. 1200
E. None of these

9. The average of 8 numbers is 20. The average of first two numbers is $15\frac{1}{2}$ and that of the next three is $21\frac{1}{3}$. If the sixth number be less than the seventh and eighth numbers by 4 and 7 respectively, then the eighth number is :

- A. 18
B. 22
C. 25
D. 27
E. None of these

10. A student finds the average of ten 2-digit numbers. While copying numbers, by mistake, he writes one number with its digits interchanged. As a result his answer is 1.8 less than the correct answer. The difference of the digits of the number, in which he made mistake, is :

- A. 2
B. 3
C. 4



- D. 6
- E. None of these

11. In an exam, the average marks obtained by the students was found to be 60. After omission of computational errors, the average marks of some 100 candidates had to be changed from 60 to 30 and the average with respect to all the examinees came down to 45 marks. The total number of candidates who took the exam, was

- A. 200
- B. 210
- C. 240
- D. 180
- E. None of these

12. Find average 1, 2, 2 3, 3, 3 4, 4, 4, 4 7, 7, 7, 7, 7, 7, 7.

- A. 28
- B. 5
- C. 20
- D. 140
- E. None of these

13. If the mean of a, b, c is M and $ab + bc + ca = 0$, then the mean of a^2, b^2, c^2 is:

- A. $3 M \times M$
- B. $3 M$
- C. $9 M$
- D. $9 M \times M$
- E. None of these

14. The average weight of 8 persons increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?

- A. 65 kg
- B. 70 kg
- C. 85 kg
- D. 92 kg
- E. None of these

15. The average age of the boys in a class is 16 years and that of the girls is 15 years. The average age for the whole class is:

- A. 15
- B. 16
- C. 17
- D. Data inadequate
- E. None of these

16. The average age of a family of 9 members is 22 years. Surya is the youngest and his age is 6 years, then what was the average age of the family just before Surya was born?

- A. 15

- B. 16
- C. 18
- D. 20
- E. 24

17. Dhoni scored 8000 runs in a certain number of innings. In the next five innings, he was out of form and hence, could make only 85 runs, as a result his average reduced by 1 run. How many innings did he play in total?

- A. 160
- B. 165
- C. 170
- D. 175
- E. Cannot be determined

18. The weights of 19 people are in Arithmetic progression. The average weight of them is 19. If the heaviest is 37 Kgs. Then what is the weight of the Lightest?

- A. 1 Kg
- B. 2 Kg
- C. 3 Kg
- D. 4 kg
- E. Cannot be determined

19. The average weight of 40 Students is 32. If the Heaviest and Lightest are excluded the average weight reduces by A. If only the Heaviest is excluded then the average is 31. Then what is the weight of the Lightest?

- A. 30
- B. 31
- C. 32
- D. 33
- E. Cannot be determined

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20. Average of 17 students in a class is X. When their marks are arranged in ascending order it was found to be in Arithmetic Progression. The class teacher found that rank the students who ranked 15th, 11th, 9th and 7th had copied the exam and hence they are suspended. Now the average of the remaining class is Y. Then

- A. $X = Y$
- B. $X > Y$
- C. $X < Y$
- D. $X = 2Y$
- E. Data insufficient

21. If x is 20% more than y, then by what percent y is smaller than x.

- A. $50/3 \%$
- B. $40/3 \%$
- C. $46/3 \%$
- D. $47/3 \%$
- E. None of these

22. In an alloy, there is 15% of brass, to get 90 kg of brass, how much alloy is needed ?

- A. 400 kg
- B. 500 kg
- C. 600 kg
- D. 700 kg
- E. None of these

Answer: C

Solution:

Let X kg of alloy is needed. So, $15/100$ of $X = 90$. So $X = 600$ kg

23. 25 litre of solution contains alcohol and water in the ratio 2:3. How much alcohol must be added to the solution to make a solution containing 60% of alcohol ?

- A. 10.5 ltr
- B. 11.5 ltr
- C. 12.5 ltr
- D. 13.5 ltr
- E. None of these

24. In an examination if a person get 20% of the marks then it is fail by 30 marks. Another person who gets 30% marks gets 30 marks more than the passing marks. Find out the total marks and the passing marks.

- A. 600 and 150
- B. 600 and 180
- C. 500 and 150
- D. 500 and 180
- E. None of these

25. A company has produced 900 pieces of transistor out of which 15% are defective and out of remaining 20 % were not sold. Find out the number of sold transistor.

- A. 610
- B. 611
- C. 612
- D. 614
- E. None of these

26. In an election the votes between the winner and loser candidate are in the ratio 5:1. If total number of eligible voters are 1000, out of which 12% did not cast their vote and among the remaining vote 10% declared invalid. What is the number of votes the winner candidate get ?

- A. 620
- B. 630
- C. 640
- D. 660
- E. None of these

27. If the price of a commodity is increased by 30%, by how much % a consumer must reduce his consumption so to keep the expenditure same ?

- A. 100/13
- B. 200/13
- C. 300/13
- D. 400/13
- E. None of these

28. 1000 sweets need to be distributed equally among the school students in such a way that each student gets sweet equal to 10% of total students. Then the number of sweets, each student gets.

- A. 10
- B. 12
- C. 14
- D. 16
- E. None of these

29. Rishi salary is first increased by 20% and then decreased by 25%. How much percent the salary increased/decreased ?

- A. 5%
- B. 10%
- C. 15%
- D. 20%
- E. None of these

30. The income of a person is 10000 and its expenditure is 6000 and thus saves 4000rs. In the next year his income is increased by 10% and its expenditure increased by 20%. Now his saving is what percent lower than the previous saving.

- A. 5%
- B. 7.5%
- C. 10%
- D. 15%
- E. None of these

31. From the salary, Akilesh spent 15% for house rent, 5% for children's education and 15% for Entertainment. Now he left with Rs.13,000. His salary is

- A. 19,000
- B. 20,000
- C. 18,000
- D. 15,000
- E. None of these

32. In a School, 40% of the students are female and thus the no of boys exceed the no of girls by 40. Find the total no of students.

- A. 190
- B. 100
- C. 200
- D. 180

E. None of these

33. In an examination 30% of the students failed in Science, 45% of the students failed in Maths and 25% of the students failed in both subjects. Find the % of the students passed ?

A. 60%

B. 30%

C. 45%

D. 50%

E. None of these

34. In an examination Ammu scored 56% marks, Saran scored 90% marks and Rima scored 650 marks that is 65% then find the total marks of three students ?

A. 2110

B. 1250

C. 2450

D. 2010

E. None of these

35. The salary of a workers increased by 15% and decreased by 7%, What % change rises in his salary ?

A. 10%

B. 7%

C. 5%

D. 8%

E. None of these



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