

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.  $xy$

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

$$xy^2 + yx^2$$

- C.  $x + y$   
D.  
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.

$$\frac{m}{n}$$

- 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:

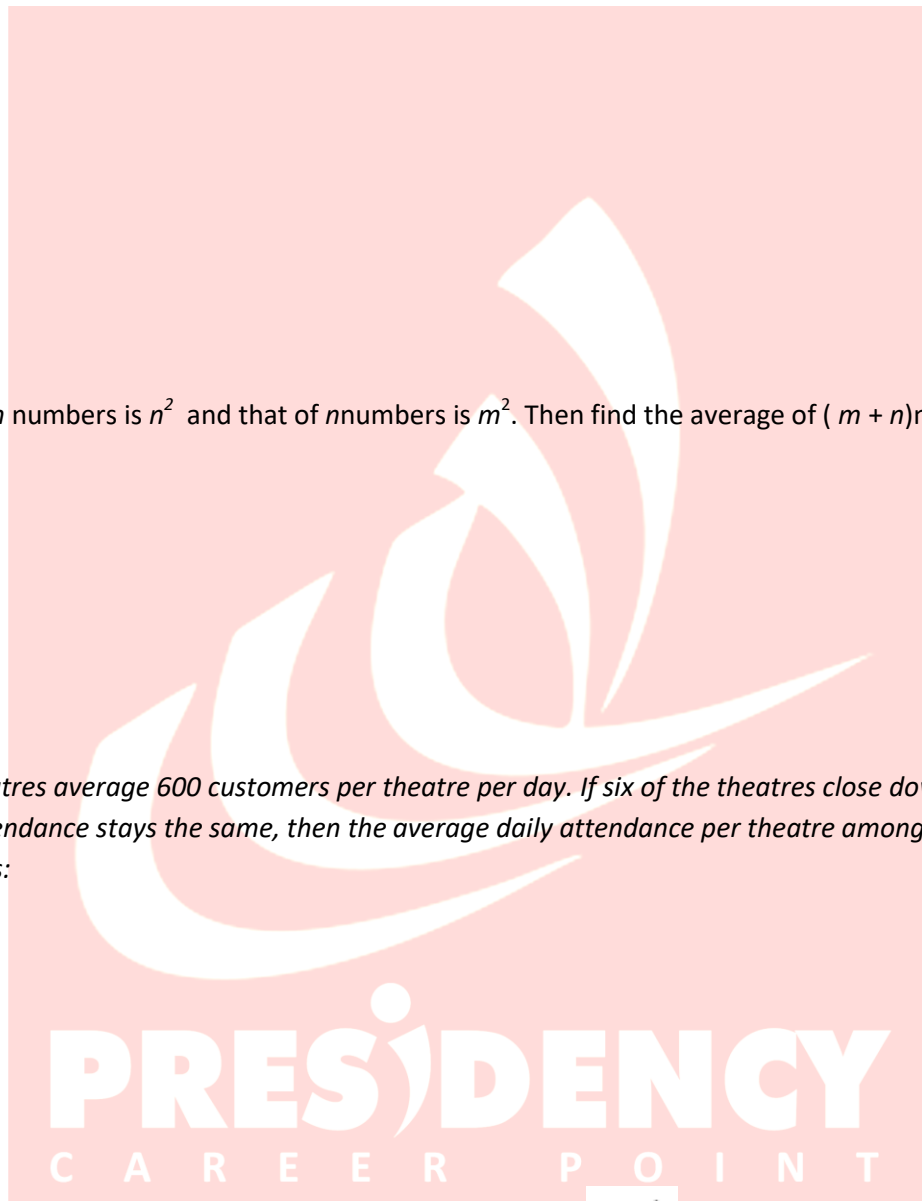
- A. 900  
B. 1000  
C. 1100  
D. 1200  
E. None of these

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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C A R E E R P O I N T

**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. A is directly proportional to B and also directly proportional to C. When  $B = 6$  and  $C = 2$ ,  $A = 24$ . Find the value of A when  $B = 8$  and  $C = 3$ .**

- A. 42
- B. 40
- C. 58
- D. 48

E. None of these

22. A is directly proportional to B and also inversely proportional to the square of C. When  $B = 16$  and  $C = 2$ ,  $A = 36$ . Find the value of A when  $B = 32$  and  $C = 4$ .

- A. 25
- B. 20
- C. 18
- D. 32
- E. None of these

23. A is directly proportional to the inverse of B and also inversely proportional to C. When  $B = 36$  and  $C = 9$ ,  $A = 42$ . Find the value of A when  $B = 64$  and  $C = 21$ .

- A. 24
- B. 40
- C. 32
- D. 48
- E. None of these

24. Divide Rs.2340 into three parts, such that first part be double that of second part and second part be  $\frac{1}{3}$  of the third part. Find the Third part amount?

- A.Rs.780
- B.Rs.1170
- C.Rs.750
- D.Rs.390
- E.None of these

25. The ratio of income of A and B is 2:3. The sum of their expenditure is Rs.8000 and the amount of savings of A is equal to the amount of expenditure of B. What is the their ratio of sum of income to their sum of savings?

- A.5:3
- B.3:2
- C.4:3
- D.3:1
- E.None of these

26. There are 2 containers of equal capacity. The ratio of milk to water in the first container is 4:5 and in the second container is 3:7.If they are mixed up then the ratio of milk to water in the mixture will be

- A.17:63
- B.65:96
- C.34:75
- D.67:113
- E.None of these

27. There are two numbers. When 25% of the first number is added to the second number, the resultant number is 1.5times the first number. What is the ratio of 1<sup>st</sup> number to the 2<sup>nd</sup> number ?

- A.3:5

- B.5:4
- C.4:5
- D.2:3
- E.None of these

28. A bag contains 10p,25p and Rs50p coins in the ratio of 5:2:1 respectively. If the total money in the bag is Rs.120.Find the number of 25p coins in that bag?

- A.160
- B.130
- C.110
- D.90
- E.None of these

29. The ratio of Ganesh's age and his mother's age is 5:12.The difference of their ages is 21.The ratio of their ages after 4 years will be

- A.3:7
- B.6:11
- C.4:7
- D.19:40
- E.None of these

30. The ratio of students of three classes is 2:3:4. If 12 students are increased in each classes then their ratio turns into 13:18:23. What was the total number of students in all the three classes originally ?

- A.250
- B.215
- C.225
- D.190
- E.None of these

31. Ravi and Govind have money in the ratio 5 : 12 and Govind and Kiran also have money in the same ratio 5 : 12. If Ravi has Rs. 500, Kiran has

- A.Rs.2500
- B.Rs.2880
- C.Rs.1850
- D.Rs.3100
- E.None of these

32. A town with a population of 1000 has provision for 30days, after 10 days 600 more men added, how long will the food last at the same rate ?

- A.12 days
- B.14 ½ days
- C.12 ½ days
- D.15 days
- E.None of these

33. A man spends Rs.2480 to buy lunch box Rs.120 each and bottles at Rs.80 each, What will be the ratio of maximum number of bottles to lunch box are bought ?

- A.13:12
- B.11:13
- C.9:12
- D.7:10
- E.None of these

34. Three cars travel same distance with speeds in the ratio 2 : 4 : 7. What is the ratio of the times taken by them to cover the distance?

- A. 12 : 6 : 7
- B. 14 : 7 : 4
- C. 10 : 5 : 9
- D. 7 : 4 : 14
- E. 14 : 10 : 7

35. Section A and section B of 7th class in a school contains total 285 students. Which of the following can be a ratio of the ratio of the number of boys and number of girls in the class?

- A. 6 : 5
- B. 10 : 9
- C. 11 : 9
- D. 13 : 12
- E. Cannot be determined