

ARITHMETIC PROGRESSIONS
MCQ

1. The sum of first 15 multiples of 8 is

- (a) 960 (b) 690 (c) 120 (d) 540

Ans. (a) 960

2. If the sum of n terms of an A.P. is $n^2 + 4n$, then its n th term is

- (a) $2n - 3$ (b) $3n - 2$ (c) $2n + 3$ (d) $3n + 2$

Ans. (c) $2n + 3$

3. If the first, second and last term of an A.P. are 3, 6 and 69 respectively, then its sum is

- (a) 792 (b) 828 (c) 900 (d) 1224

Ans. (b) 828

4. If 7th and 13th term of an A.P. are 34 and 64 respectively, then its 23rd term is

- (a) 114 (b) 115 (c) 118 (d) 119

Ans. (a) 114

5. The number of terms of an A.P. 3, 7, 11, 15... to be taken so that the sum is 528 is

- (a) 12 (b) 14 (c) 16 (d) 18

Ans. (c) 16

6. If the sum of three consecutive terms of an decreasing A.P. is 57 and the product of the first and third of these terms is 345, then the third term is

- (a) 15 (b) 19 (c) 23 (d) 27

Ans. (a) 15

7. An AP consists of 50 terms of which 3rd term is 12 and the last term is 106, then the 29th term is

- (a) 68 (b) 64 (c) 62 (d) 60

Ans. (b) 64

8. If p^{th} term of an A.P. is $\frac{1}{q}$ and q^{th} term is $\frac{1}{p}$, then its first term is

- (a) $\frac{1}{q}$ (b) $\frac{1}{p}$ (c) $\frac{1}{pq}$ (d) $\frac{1}{p+q}$

Ans. (c) $\frac{1}{pq}$

9. $2k + 1$, $3k + 3$ and $5k - 1$ are the consecutive terms of an A.P., then the value of k is

- (a) 5 (b) 6 (c) 7 (d) 8

Ans. (b) 6

10. The sum of first n odd natural numbers is

- (a) n^2 (b) $2n^2$ (c) $(n + 1)^2$ (d) $\frac{n(n+1)}{2}$

Ans. (a) n^2

11. If the sum of three consecutive terms of an increasing A.P. is 57 and the product of the first and third of these terms is 345, then the third term is

- (a) 15 (b) 19 (c) 23 (d) 27

Ans. (c) 23

12. The sum of first n even natural numbers is

- (a) n^2 (b) $2n^2$ (c) $(n + 1)^2$ (d) $n(n + 1)$

Ans. (d) $n(n + 1)$

13. The first and last term of an A.P. are 2 and 23. If the sum of its terms is 100, then the number of terms will be

- (a) 7 (b) 8 (c) 9 (d) 10

Ans. (b) 8

14. The number of three-digit natural numbers which are divisible by 11 are

- (a) 79 (b) 80 (c) 81 (d) 82

Ans. (c) 81

15. If 8, $x + 1$, 18 are in A.P. then the value of x is

- (a) 11 (b) 12 (c) 13 (d) 14

Ans. (b) 12

16. Sum of all natural numbers lying between 100 and 1000 which are exactly divisible by 3 is

- (a) 165150 (b) 156150 (c) 155150 (d) 16515

Ans. (a) 165150

17. Sum of first 50 natural numbers is

- (a) 1275 (b) 2550 (c) 2500 (d) none of these

Ans. (a) 1275

18. Two APs have the same common difference. The difference between their 100th terms is 100, then the difference between their 1000th terms is

- (a) 1000 (b) 900 (c) 100 (d) 1100

Ans. (c) 100

19. If 16, a, b, - 4 are in A. P. , then $a + b =$

- (a) 2 (b) 12 (c) 20 (d) 10

Ans. (b) 12

20. If sum of n terms of an A.P. is $4n^2 - 3n$ then common difference of the A.P. is

- (a) 9 (b) 6 (c) 7 (d) 8

Ans. (d) 8