

UDAY 2025

Mathematics

Sequences and Series

DPP: 1

- Q1** If twice the 11^{th} term of an A.P. is equal to 7 times of its 21^{st} term, then its 25^{th} term is equal to
 (A) 24 (B) 120
 (C) 0 (D) none of these
- Q2** If the sum of the 10 terms of an AP is 4 times to the sum of its 5 terms, then the ratio of first term and common difference is
 (A) 1 : 2 (B) 2 : 1
 (C) 2 : 3 (D) 3 : 2
- Q3** If $2x, (x + 8), (3x + 1)$ are in AP, then the value of x will be
 (A) 3 (B) 7
 (C) 5 (D) -2
- Q4** If three numbers are in AP whose sum is 33 and product is 792, then the smallest number from these numbers is
 (A) 4 (B) 8
 (C) 11 (D) 14
- Q5** If the sum of n terms of an AP is $2n^2 + 5n$, then n^{th} term will be
 (A) $4n + 3$ (B) $4n + 5$
 (C) $4n + 6$ (D) $4n + 7$
- Q6** If p times the p^{th} term of an AP is equal to q times the q^{th} term of an AP, then $(p + q)^{\text{th}}$ term is equal to
 (A) 0 (B) 1
 (C) 2 (D) 3
- Q7** If a, b, c, d and e are in AP, then the value of $a + b + 4c - 4d + e$ in terms of a , if possible, is
 (A) $4a$
 (B) $2a$
 (C) 3
 (D) None of these
- Q8** If a, b, c are in AP, then the value of $(a + 2b - c)(2b + c - a)(a + 2b + c)$ is
 (A) $4abc$
 (B) $8abc$
 (C) $3abc$
 (D) $16abc$
- Q9** Four numbers are in A. P. The sum of first and last is 8 and the product of both middle terms is 15. The least among the four numbers is
 (A) 1 (B) 2
 (C) 3 (D) 4
- Q10** If $\frac{3+5+7+\dots \text{ to } n \text{ terms}}{5+8+11+\dots \text{ to } 10 \text{ terms}} = 7$, then the value of n is
 (A) 35 (B) 36
 (C) 37 (D) 40
- Q11** If the 19^{th} term of a non-zero A. P. is zero then the ratio $(49^{\text{th}} \text{ term}) : (29^{\text{th}} \text{ term})$ is
 (A) 4 : 1 (B) 1 : 3
 (C) 3 : 1 (D) 2 : 1



Q12 The sum of three numbers in A. P. is 27 and the sum of their square is 293 . Then numbers are

- (A) 5, 10, 15
- (B) 4, 9, 14
- (C) 3, 8, 13
- (D) 6, 11, 16

Q13 The sum of integers from 1 to 100 that are divisible by 2 or 5 is equal to

- (A) 3000
- (B) 3050
- (C) 4050
- (D) None of these

Q14 Which term of the sequence

$(-8 + 18i), (-6 + 15i), (-4 + 12i), \dots$ is purely imaginary?

- (A) 7th
- (B) 6th
- (C) 5th
- (D) 4th

Q15 The sum of n terms of two arithmetic series are in the ratio $2n + 3 : 6n + 3$, then find the ratio of their 13th term.



Answer Key

Q1 C
Q2 A
Q3 C
Q4 A
Q5 A
Q6 A
Q7 D
Q8 D

Q9 A
Q10 A
Q11 C
Q12 B
Q13 B
Q14 C
Q15 53 : 153



[Android App](#)



[iOS App](#)



[PW Website](#)

