

Time 1h

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MM 60

Arithmetic Progression

- Which of the following sequences are A.P.'S? Write down their common difference.
 - 5, 10, 15, 20, 25.....
 - 2, 2, 2, 2, 2.....
 - 2, 4, 8, 16, 32.....
 - $\frac{1}{5}, \frac{1}{10}, \frac{1}{15}, \frac{1}{20}, \dots$
- Write next two terms of given A.P.
 - 3, -5, -7, -9.....
- Find 10th term of given A.P. 10, 20, 30, 40.....
- Find 20th term of A.P. Whose first term = 10, C.D = 3
- Find n, if the given value of x is nth term of A.P.
17, 22, 27, 32,.....; x = 267
- Find $T_{20} - T_{15}$ for the A. P. 3, 14, 25, 36.....
- Third term of an A.P. is 21 and the eighth term is 56. Find A.P. and also find its eleventh term.
- 3 times the tenth term is equal to 5 times the twentieth term. Find twentieth term.
- Find the sum $2+4+6+\dots+202$
- Write sequence with nth term $5+2n$. Find sum of first 20 terms.
- Find sum of first 20 terms of the sequence whose nth term is $a_n = 3 + \frac{2n}{3}$
- Find sum of all natural numbers between 1 and 98 which are multiples of 6.
- How many terms of the series must be added to get sum 55
15, 13, 11, 9,.....
- Sum of terms of A.P. is 36 and product is 1296. Find A.P.

Each Q 3 marks

Answers.

1. (a) common difference = 5 (b) common difference = 0
2. (a) -11, -13
3. $F_{10} = 10$
4. $T_{20} = 67$
5. $n = 51$
6. $T_{20} - T_{15} = 55$
7. A.P is 7, 14, 21, 28..... $T_{11} = 77$
8. 0
9. 10302
10. 315
11. 200
12. 816
13. 5 or 11
14. 6,12,18

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