

## Chapter-Arithmetic Progressions Question bank

Q1.

If  $S_n$ , the sum of first  $n$  terms of an A.P. is given by  $S_n = 3n^2 - 4n$ , find the  $n$ th term. [CBSE Delhi, Set 1, 2019]

Q2

The sum of the first 7 terms of an A.P. is 63 and that of its next 7 terms is 161. Find the A.P. [CBSE Delhi, Set 3, 2020]

Q3.

Find the sum of all 11 terms of an A.P. whose middle term is 30. [CBSE OD, Set-II, 2020]

Q4.

Which term of the A.P.  $20, 19\frac{1}{4}, 18\frac{1}{2}, 17\frac{3}{4}, \dots$  is the first negative term.

Q5.

An arithmetic progression 5, 12, 19, .... has 50 terms. Find its last term. Hence find the sum of its last 15 terms.

Q6.

i. If  $1 + 4 + 7 + 10 + \dots + n = 287$ , Find the value of  $n$ .

Q7.

• i. Find the value of  $a, b$  and  $c$  such that the numbers  $a, 7, b, 23$  and  $c$  are in AP

Q8.

. The first term of an AP is 3, the last term is 83 and the sum of all its terms is 903. Find the number of terms and the common difference of the AP.

Q9.

. Find the sum of the two digits numbers divisible by 6.

Q10.

. If the ratio of the  $11^{\text{th}}$  term of an AP to its  $18^{\text{th}}$  term is  $2 : 3$ , find the ratio of the sum of the first five term of the sum of its first 10 terms.