



# VIDYA BHAWAN, BALIKA VIDYAPITH

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(Affiliated to CBSE up to +2 Level)

Class: X

Subject: Mathematics (Revision)

Date: 06.07.2021

1. Write the common difference of an A.P. whose  $n$ th term is  $3n + 5$ .
2. Write the value of  $x$  for which  $x + 2$ ,  $2x$ ,  $2x + 3$  are three consecutive terms of an A.P.
3. For what value of  $k$ , are the numbers  $x$ ,  $(2x + k)$  and  $(3x + 6)$  three consecutive terms of an A.P.?
4. If  $\frac{4}{5}a$ ,  $2$  are three consecutive terms of an A.P., then find the value of  $a$ ?
5. For what value of  $p$  are  $2p - 1$ ,  $7$  and  $3p$  three consecutive terms of an A.P.?
6. For what value of  $p$  are  $2p + 1$ ,  $13$  and  $5p - 3$  three consecutive terms of an A.P.?
7. Find the next term of the A.P.  $\sqrt{2}, \sqrt{8}, \sqrt{18}, \dots$
8. Which term of the A.P.:  $21, 18, 15, \dots$  is zero?
9. If the sum of first 7 terms of an A.P. is 49 and that of first 17 terms is 289, find the sum of  $n$  terms.
10. Find the sum of all three digit numbers which are divisible by 7.
11. Find the sum of all the three digit numbers which are divisible by 9.
12. If  $S_n$  the sum of  $n$  terms of an A.P. is given by  $S_n = 3n^2 - 4n$ , find the  $n$ th term.
13. The sum of 4th and 8th terms of an A.P. is 24, and the sum of 6th and 10th terms is 44.  
Find the A.P.
14. The Sum of  $n$  terms of an A.P. is  $5n^2 - 3n$ . Find the A.P. Hence find its 10th term.

**15.** The sum of 4th and 8th terms of an A.P. is 24 and the sum of 6th and 10th terms is 44.

Find the first three terms of the A.P.

**16.** If  $T_n = 3 + 4n$  then find the A.P. and hence find the sum of its first 15 terms.

**17.** Which term of the A.P.: 3, 15, 27, 39, .... will be 120 more than its 53rd term?

**18.** Find the 31st term of an A.P. whose 10th term is 31 and the 15th term is 66.

**19.** If the 8th term of an A.P. is 37 and the 15th term is 15 more than the 12th term, find the A.P. Hence find the sum of the first 15 terms of the A.P.

**20.** The 5th and 15th terms of an A.P. are 13 and 17 respectively. Find the sum of first 21 terms of the A.P.

**21.** In an A.P. the sum of its first ten terms is 150 and the sum of its next ten terms is 550. Find the A.P.

**22.** The sum of  $n$  terms of an A.P. is  $3n^2 + 5n$ . Find the A.P. Hence, find its 16th term.

**23.** In an A.P., the first term is 8,  $n$ th term is 33 and sum of first  $n$  terms is 123. Find  $n$  and  $d$ , the common difference.