

**Task:**

Find the nth term of each arithmetic progression.

$$a_1=3 \quad d=7 \quad n=11$$

**Solution:**

In mathematics, an arithmetic progression is a sequence of numbers such that the difference between the consecutive terms is constant. For instance, the sequence 5, 7, 9, 11, 13, 15 ... is an arithmetic progression with common difference of 2.

If the initial term of an arithmetic progression is  $a_1$  and the common difference of successive members is  $d$ , then the nth term of the sequence  $(a_n)$  is given by:  $a_n = a_1 + (n - 1)d$ .

In our case,  $a_n = a_{11} = 3 + (11 - 1) \cdot 7 = 3 + 10 \cdot 7 = 3 + 70 = 73$ .

**Answer:**

The nth term of each arithmetic progression is  $a_{11} = 73$ .