

Which term of the AP: 3, 8, 13, 18, \dots , is 78?

Parameter	Value
First term (a_1)	3
Common difference (d)	5
n -th term (a_n)	78

Table 1: Input Parameters for Arithmetic Progression

To find the term number (n) when the n -th term (a_n) is 78 in the arithmetic progression (AP) with the given input parameters, we can use the formula:

$$a_n = a_1 + (n - 1)d$$

Substituting the values from Table 1:

$$78 = 3 + (n - 1) \times 5$$

Now, solve for n :

$$78 = 3 + 5(n - 1)$$

$$75 = 5(n - 1)$$

$$15 = n - 1$$

$$n = 16$$

Therefore, the term number (n) when $a_n = 78$ in the given arithmetic progression is 16.