

Nth Term of a Sequence

The ***nth* term** of a sequence enables us to find any term in a sequence. We can calculate it by using the common difference to create a sequence, and then adding or subtracting to make the original sequence.

 **Example** Find the *nth* term of 5, 9, 13, 17, 21, ...

$$\begin{array}{ccccccccc} 5, & 9, & 13, & 17, & 21, & \dots \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \\ +4 & +4 & +4 & +4 & +4 & \end{array}$$

$4n$	4, 8, 12, 16, 20
$4n + 1$	5, 9, 13, 17, 21

The *nth* term of this sequence is $4n + 1$.