



Arithmetic Progression Formulas

We have the following arithmetic progression formulas which are tabulated below:

Sequence	$a, a+d, a+2d, \dots, a + (n - 1)d, \dots$
Common Difference	$d = (a_2 - a_1)$, where a_2 and a_1 are successive term and preceding term respectively.
General Term (nth term)	$a_n = a + (n - 1)d$
nth Term from the last term	$a_{n'} = l - (n - 1)d$, where l is the last term
Sum of first n terms	$S_n = n/2[2a + (n - 1)d]$
Sum of first n terms if first and last term is given	$S_n = n/2[\text{first term} + \text{last term}]$

Here,

$a = \text{first term}$

$d = \text{common difference}$

$a_n = \text{nth term}$

$a_{n'} = \text{nth term from the last term}$

$S_n = \text{Sum of } n \text{ terms of AP}$

$n = \text{total number of terms}$

$l = \text{last term}$