

CHAPTER 05**Arithmetic Progressions****Example:**

Write first three terms of a sequence, where n^{th} term is defined by $a_n = n^2 + n$.

Sol.

We have $a_n = n^2 + n$

Putting $n = 1, 2$ and 3 . We get

$$a_1 = (1)^2 + (1) = 1 + 1 = 2$$

$$a_2 = (2)^2 + (2) = 4 + 2 = 6$$

$$a_3 = (3)^2 + (3) = 9 + 3 = 12$$

Hence, first three terms are $2, 6$ and 12 .

Example:

Find the first term and common difference of the A.P $3, 1, -1, -3, -5...$

Sol.

The given A.P is $3, 1, -1, -3, -5...$

First term (a) = 3

Common difference (d) = $1 - 3 = -2$

