



SSLC – MATHEMATICS

NOTE: Practice Textbook Chapter Wise Worked Examples and Exercise Problems

PRACTICE - 01

Write first four terms of the A.P, When $a = -2, d = 0$

Let us consider, the Arithmetic Progression series be $a_1, a_2, a_3, a_4, a_5 \dots$

$$a_1 = a = -2$$

$$a_2 = a_1 + d = -2 + 0 = -2$$

$$a_3 = a_2 + d = -2 + 0 = -2$$

$$a_4 = a_3 + d = -2 + 0 = -2$$

Therefore, the A.P. series will be $-2, -2, -2, -2 \dots$

And, first four terms of this A.P. will be $-2, -2, -2$ and -2 .

PRACTICE - 02

Which term of the A.P. 3, 8, 13, 18, ... is 78?

Given the A.P. series as 3, 8, 13, 18, ...

First term, $a = 3$

Common difference, $d = a_2 - a_1 = 8 - 3 = 5$

Let the n^{th} term of given A.P. be 78. Now as we know,

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

Therefore,

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

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

$$(n-1) = 15$$

$$n = 16$$

Hence, 16th term of this A.P. is 78.

CAN YOU SOLVE THIS

In an arithmetic progression, the first term is 2 and the common difference is 7. Which term of the sequence is 45?

PRACTICE

Find the number of terms in AP: 7, 13, 19, ..., 205

First term, $a = 7$

Common difference, $d = a_2 - a_1 = 13 - 7 = 6$

Let there are n terms in this A.P.

$a_n = 205$

As we know, for an A.P.,

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

Therefore, $205 = 7 + (n - 1) 6$

$198 = (n - 1) 6$

$33 = (n - 1)$

$n = 34$

TRY THIS

If the sum of the first n terms of an arithmetic progression is 12001200, and the common difference is 44, find the value of n

YOU CAN SOLVE IT

- Write First 4 terms of AP: $a = 10, d = 10, a = 4, d = -3$
- Which term of the A.P. 6, 11, 16, 21, ... is 116?
- How many terms are there in the arithmetic progression 10, 20, 30, ..., 100?
- Find the number of terms in the arithmetic progression 2, 5, 8, ..., 50, if the common difference is 3

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