

WANDOOR GANITHAM - S S L C UNIT TEST 2021

4.01BE

ARITHMETIC SEQUENCES

Total Score : 25

Time : 45 minutes

- The algebraic form of an arithmetic sequence is $3n - 1$
 - What is its common difference ?
 - Find the position of 119 in this sequence ? (2)
- 5th term of an arithmetic sequence is 36 and its 8th term is 57
 - What is its common difference ?
 - What is its 20th term ? (2)
- Consider the arithmetic sequence 4, 10, 16,

 - What is its common difference ?
 - Find the position of the term obtained by subtracting 60 from its 50th term ? (2)

- Find the following sums .
 - $1 + 2 + 3 + 4 + 5 + \dots + 20$
 - $8 + 16 + 24 + 32 + 40 + \dots + 160$
 - $5 + 13 + 21 + 29 + 37 + \dots + 157$ (3)
- What is the common difference of the sequence 5, 8, 11,
 - What is the common difference of the sequence 7, 10, 13,
 - What is the difference between the sum of first 11 terms of these sequences ? (3)
- The sum of first 11 terms of an arithmetic sequence is 235 and the sum of first 12 terms is 300 .
 - What is its 6th term ?
 - What is its 12th term ?
 - What is its common difference ?
 - What is its algebraic form ? (4)

7. Consider the sequence of two digit numbers which leave a remainder 1 on divisible by 2

- a) What is its common difference ?
- b) Which is the smallest number in this sequence ?
- c) How many two digit numbers are there which leave a remainder 1 on divisible by 2 ?
- d) What is the sum of such numbers ? (4)

8 . Look at the number pattern given below.

1
2 3
4 5 6
7 8 9 10
.....
.....

- a) Write down the next two more lines of this pattern ?
- b) How many numbers are there in the 10th line ?
- c) What is the last number in the 9th line ?
- d) What is the first number in the 10th line ?
- e) What is the sum of all numbers in the first 10 lines ? (5)