

WANDOOR GANITHAM - S S L C UNIT TEST 2021

4.01AE

ARITHMETIC SEQUENCES

Total Score : 25

Time : 45 minutes

- Consider the arithmetic sequence $5, 9, 13, \dots$
 - What is its common difference ?
 - What is its 20th term ? (2)
- 6th term of an arithmetic sequence is 19 and its 10th term is 31
 - What is its common difference ?
 - What is its first term ? (2)
- The algebraic form of an arithmetic sequence is $5n + 3$
 - What is its common difference ?
 - What is its first term ? (2)
- Find the following sums .
 - $1 + 2 + 3 + 4 + 5 + \dots + 15$
 - $2 + 4 + 6 + 8 + 10 + \dots + 30$
 - $5 + 7 + 9 + 11 + 13 + \dots + 33$ (3)
- Consider the arithmetic sequence $6, 14, 22, \dots$
 - What is its common difference ?
 - What is its 7th term ?
 - What is the sum of first 13 terms of this sequence ? (3)
- The sum of first 7 terms of an arithmetic sequence is 119 and the sum of first 11 terms is 275 .
 - What is its 4th term ?
 - What is its 6th term ?
 - What is its common difference ?

d) 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 12th line ?

c) What is the last number in the 11th line ?

d) What is the first number in the 12th line ?

e) What is the sum of the numbers in the 12th line ? (5)