Std X	MATHEMATICS	Time 1 hr/ Score 20

1. The first two terms of an arithmetic sequence are given. Write the next two terms.
    5, 12, __, __   **(1)**

2. Is 2018 a term of the arithmetic sequence 5, 9, 13....? Why ?   **(2)**

3. If the sum of first 5 terms of an arithmetic sequence is 100 then

    a) Find the third term
    b) Find the sum of first and fifth terms   **(2)**

4. The 13th term of an arithmetic sequence is 54 more than the 4th term.

    a) What will be the common difference of this sequence?
    b) Find the difference between th 29th term and the 20th term
        of this sequence?   **(2)**

5. The nth term of an arithmetic sequence is 7n -1

    a) Find its common difference.
    b) Write the first term
    c) Calculate the 10th term   **(3)**

6. a). Find the sum of consecutive natural numbers from 1 to 30
   b). Calculate the sum of first 30 terms of the arithmetic sequence
        5, 10, 15...
   c). Calculate the sum of first 30 terms of the arithmetic sequence
        6, 11, 16 ...   **(3)**

7. See the pattern of numbers

    a). Write the next two lines
    b). If continued like this, how many numbers
        will be there in 12th line?
    c). Find the last number of the 12th line.

    1
    2 3
    4 5 6
    7 8 9 1 0   **(3)**

8. look at the pattern made usind matchsticks

    a). Draw the next figure
    b). Write the sequence of numbers of sticks used in each figure.
    c). How many matchsticks will be needed to make the 10th figure of this
        pattern.
    d). Write the algebraic form of the sequence of number of matchsticks. **(4)**