X- Mathematics Assignment No-06- Arithmetic Progression

(Q1). Find the sum of the series
$1+4+7+ \cdots\cdots$ 25 terms

(Q2). Find the sum of 15 terms of the following series
36, 31, 26, $\cdots\cdots$

(Q3). Find the sum of all two digit natural numbers, which are divisible by 3

(Q4). How many terms of the A.P. 1, 3, 5, $\cdots$ are needed to give the sum 256?

(Q5). How many terms of the A.P. $-6, -\frac{11}{2}, -5, \cdots$ are needed to give the sum (-25)? Also explain the reason for double answer.

(Q6) Find A.P. whose sum to n terms is $(2n^2+n)$

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(Q7). Find the sum to 17 terms of the sequence whose n^{th} term is given by $t_n = 5n-4$

(Q8). Find the sum of first 100 natural numbers.

(Q9). Find the sum of all natural numbers between 250 and 1000 which are exactly divisible by 3.

(Q10). The first term of an A.P. is 2 and the last term is 59. Find the common difference if the sum of all the terms is 610.

ANSWERS:-

(Q1) 925

(Q2) 15

(Q3) 1665

(Q4) 16

(Q5) 5, 20

(Q5) Cont.
Since sum of first five terms = sum of " 20 " = −25
∵ Sum of terms from 6 to 20 is zero.

(Q6) 3, 7, 11, 15, - - - - -

(Q7) 697

(Q8) 5050

(Q9) 867

(Q10) 3