X - Mathematics Assignment No-05-Arithmetic Progression

Q1. Find the Sum of 20 terms whose first term is 8 and Common difference is 5.

Q2. Find the Sum of 50 terms whose first term is 10 and the Common difference is (-2).

Q3. Find the Sum of 17 terms in the following A.P.

$$5, 1, -3, \cdots\cdots\cdots 17 \text{ terms}$$

Q4. Find the Sum of 100 terms of the following series

$$0.9, 0.91, 0.92, \cdots\cdots\cdots$$

Q5. Find the Sum of the following A.P.

(i) $2 + 5 + 8 + \cdots\cdots + 47$

(ii) $2\frac{1}{2} + 3\frac{1}{3} + 4\frac{1}{6} + \cdots\cdots + 27\frac{1}{2}$

Q6. Find the Sum of first 18 terms of an A.P. whose first term is 5 and the Common difference is 2.

Q7. Find the Sum of 20 terms of the sequence whose nth term is $(3-4n)$

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Q8. The first term of an A.P. is (-2) and the common difference is $(-\frac{7}{2})$. Find the sum to n terms of the A.P. Hence find the sum of 20 terms of the A.P.

Q9. Find the sum of all natural numbers between 2 and 101, which are divisible by 5.

Q10. The last term of an A.P. is 252. Its 1st term and common difference are 12 and 6. Find the sum of A.P. by (i) using last term

(ii) Without using last term

verify that the answer is same in both cases

ANSWERS:-

(Q1). 1110	(Q5) (i) 392	(Q8). $S_n = -\frac{n(7n+1)}{4}$
(Q2). -1950	(ii) 465	(Q9). $S_{20} = -705$
(Q3). -4089	(Q6) 396	$\rightarrow$ 1050
(Q4). 139.5	(Q7) -780	(Q10). 5412