Name: _____

Arithmetic Sequences and Series

1) Find the sums of the arithmetic sequences:

   1) $34 + 32 + 30 + \ldots + 10$

   2) $-5 + (-8) + (-11) + \ldots + (-230)$

2) Find the sum of the first 22 terms of an arithmetic sequence in which $d = 7$ and 22nd term is 149.

3) The first and the last terms of an arithmetic sequence are 17 and 350 respectively. If the common difference is 9, how many terms are there and what is their sum?

4) The first term of an arithmetic sequence is 5, the last term is 45 and the sum is 400. Find the number of terms and the common difference.

5) Find the sum of the first 51 terms of an arithmetic sequence whose second and third terms are 14 and 18 respectively.

6) If the sum of the first 7 terms of an arithmetic sequence is 49 and that of 17 terms is 289, find the sum of first n terms.

7) In an arithmetic sequence:

    1) Given $a = 5$, $d = 3$, $a_n = 50$, find n and S_n.

    2) Given $a = 7$, $a_{13} = 35$, find d and S_{13}.

    3) Given $a_{12} = 37$, $d = 3$, find a and S_{12}.

    4) Given $a_3 = 15$, $S_{10} = 125$, find d and a_{10}.

    5) Given $d = 5$, S9 = 75, find a and a_9.

    6) Given $a = 2$, $d = 8$, $S_n = 90$, find n and a_n.

    7) Given $a = 8$, $a_n = 62$, $S_n = 210$, find n and d.

    8) Given $a_n = 4$, $d = 2$, $S_n = -14$, find n and a.

    9) Given $a = 3$, $n = 8$, S = 192, find d.

    10) Given $l = 28$, S = 144, and there are total 9 terms. Find a.