$a_n = a_1 + (n-1)d$

$S_n = \frac{n}{2}(a_1 + a_n)$

Name:_____

10.1 & 10.2 Practice

1) Given the simplified explicit formula for an arithmetic series is $a_n$ =-3n + 23, what would the value of 'd' be?

2) Find *d* of the arithmetic sequence for which $a_1$ = 75 and $a_{38}$ = 56.5

3) Using the formula from number 1, find the first term and write the explicit formula before it is simplied.

4) Find *n* if $a_n$ = 336, $a_1$ = 18, and *d* = 6.

5) Given the arithmetic sequence 11, 4, –3, –10, …, write the explicit formula

6) Given $a_8$ = 25 and $a_{20}$ = 61, find $a_{53}$ for the arithmetic sequence.

7) Using the same sequence from #5, find the 41st term.

8) Given the sequence in #6 is now a series, find the sum of the first 21st partial sum.

9) Find the 101st partial sum of the arithmetic series

–2.5 + 7.5 + 17.5 + …

10) Which term of the arithmetic sequence

10, 6, 2, −2, …-146 is −146?

11) Evaluate: $\sum_{n=1}^{30} 5n + 3$ using the finite sum formula.