PRECAL Name_____

Arithmetic Sequences and Series Review

Date_____ Period____

Determine if the sequence is arithmetic. If it is, find the common difference, the term named in the problem, and the explicit formula.

1) $-3,\ 2,\ 7,\ 12,\ ...$
Find a_{22}

Given the recursive formula for an arithmetic sequence find the common difference, the term named in the problem, and the explicit formula.

2) $a_n = a_{n-1} + 30$
$a_1 = -3$
Find a_{26}

Given the second term and the common difference of an arithmetic sequence find the term named in the problem and the explicit formula.

3) $a_2 = 39,\ d = 30$
Find a_{40}

Given a term in an arithmetic sequence and the common difference find the term named in the problem and the explicit formula.

4) $a_{20} = -91,\ d = -4$
Find a_{35}

Given two terms in an arithmetic sequence find the term named in the problem and the explicit formula.

5) $a_{19} = -76$ and $a_{30} = -98$
Find a_{37}

Find the missing term or terms in each arithmetic sequence.

6) ..., $-\frac{7}{5}$, _____, _____, _____, _____, _____, $-\frac{57}{5}$, ...

Evaluate the related series of each sequence.

7) $-28,\ -33,\ -38,\ -43,\ -48,\ -53,\ -58$

Evaluate each arithmetic series described.

8) $a_1 = -18,\ a_n = -163,\ n = 30$

9) $a_1 = -16,\ d = -4,\ n = 40$

10) $3 + 6 + 9 + 12..., \ n = 18$

11) $\sum_{k=5}^{34} (-3k - 4)$

12) $\sum_{m=4}^{18} (10m - 16)$

Determine the number of terms *n* in each arithmetic series.

13) $a_1 = 25, \ a_n = 70, \ S_n = 285$

14) $\sum_{i=1}^{n} (10i - 11) = 7760$