ADVANCED MATH Name_____

Arithmetic Sequences WS #3

Date_____ Period____

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Find the explicit formula and the three terms in the sequence after the last one given.

1) 15, 7, –1, –9, ...

2) 40, 70, 100, 130, ...

Given the explicit formula for an arithmetic sequence find the term named in the problem.

3) $a_n = 28 + 7n$
Find a_{22}

4) $a_n = -9 - 10n$
Find a_{37}

Given the recursive formula for an arithmetic sequence find the 52nd term and the explicit formula.

5) $a_n = a_{n-1} + 10$
$a_1 = -9$

6) $a_n = a_{n-1} + 2$
$a_1 = -21$

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

7) $a_1 = -34,\ d = -20$
Find a_{37}

8) $a_1 = 23,\ d = 5$
Find a_{37}

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

9) $a_2 = 2,\ d = -9$
Find a_{31}

10) $a_2 = 32,\ d = -3$
Find a_{37}

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

11) $a_9 = 32,\ d = 5$
Find a_{21}

12) $a_{16} = -3001,\ d = -200$
Find a_{35}

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

13) $a_{19} = -98$ and $a_{40} = -182$
Find a_{27}

14) $a_{12} = -80$ and $a_{34} = -300$
Find a_{39}

Find the missing term or terms in each arithmetic sequence.

15) ..., −13, _____, _____, _____, −53, ...

16) ..., −39, _____, _____, _____, _____, _____, 1161, ...

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