PRECAL Name_____

Arithmetic Sequences WS #1

Date_____ Period____

Determine if the sequence is arithmetic. If it is, find the common difference, the 52nd term, and the explicit formula.

1) −28, −34, −40, −46, ...

2) 16, 6, −4, −14, ...

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

3) 16, 116, 216, 316, ...
Find a_{33}

4) 16, −184, −384, −584, ...
Find a_{28}

Given the recursive formula for an arithmetic sequence find the first five terms, the term named in the problem, and the explicit formula.

5) $a_n = a_{n-1} - 10$
$a_1 = -8$
Find a_{20}

6) $a_n = a_{n-1} + 4$
$a_1 = -21$
Find a_{20}

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

7) $a_2 = 54,\ d = 30$
Find a_{29}

8) $a_2 = -53,\ d = -20$
Find a_{40}

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

9) $a_{22} = -31,\ d = -2$
Find a_{38}

10) $a_{31} = -114,\ d = -5$
Find a_{34}

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

11) $a_{18} = -134$ and $a_{37} = -305$
Find a_{26}

12) $a_{18} = -4$ and $a_{37} = 34$
Find a_{34}

Find the missing term or terms in each arithmetic sequence.

13) ..., $-\frac{3}{5}$, ____, ____, ____, $-\frac{33}{5}$, ...

14) ..., 9.9, ____, ____, ____, ____, 20.4, ...

15) ..., $-\frac{3}{4}$, ____, ____, ____, ____, ____, $-\frac{35}{4}$, ...