 Name_____

Arithmetic Sequences

Date_____ Period____

Determine if the sequence is arithmetic. If it is, find the common difference.

1) 35, 32, 29, 26, ...

2) −3, −23, −43, −63, ...

3) −34, −64, −94, −124, ...

4) −30, −40, −50, −60, ...

5) −7, −9, −11, −13, ...

6) 9, 14, 19, 24, ...

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

7) $a_n = -11 + 7n$
Find a_{34}

8) $a_n = 65 - 100n$
Find a_{39}

9) $a_n = -7.1 - 2.1n$
Find a_{27}

10) $a_n = \frac{11}{8} + \frac{1}{2}n$
Find a_{23}

Given the first term and the common difference of an arithmetic sequence find the first five terms and the explicit formula.

11) $a_1 = 28,\ d = 10$

12) $a_1 = -38,\ d = -100$

13) $a_1 = -34,\ d = -10$

14) $a_1 = 35,\ d = 4$

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

15) $a_{38} = -53.2,\ d = -1.1$

16) $a_{40} = -1191,\ d = -30$

17) $a_{37} = 249,\ d = 8$

18) $a_{36} = -276,\ d = -7$

Given the first term and the common difference of an arithmetic sequence find the recursive formula and the three terms in the sequence after the last one given.

19) $a_1 = \frac{3}{5},\ d = -\frac{1}{3}$

20) $a_1 = 39,\ d = -5$

21) $a_1 = -26,\ d = 200$

22) $a_1 = -9.2,\ d = 0.9$

Given a term in an arithmetic sequence and the common difference find the recursive formula and the three terms in the sequence after the last one given.

23) $a_{21} = -1.4,\ d = 0.6$

24) $a_{22} = -44,\ d = -2$

25) $a_{18} = 27.4,\ d = 1.1$

26) $a_{12} = 28.6,\ d = 1.8$

Given two terms in an arithmetic sequence find the recursive formula.

27) $a_{18} = 3362$ and $a_{38} = 7362$

28) $a_{18} = 44.3$ and $a_{33} = 84.8$