

Name: _____

Date: _____

13.4 HW: Explicit Formulas for Arithmetic Sequences

Algebra 1

Answer the following questions.

1. Write the sequence whose $a_2 = -4$ and common difference is 3.

2. Write the Fibonacci Sequence. _____
Is it arithmetic? Explain why.

3. Find the next three terms of the arithmetic sequence.

3, -10, -23, -36, _____, _____, _____ ...

4. Consider the arithmetic sequence below.

$a_1, a_2, a_3, a_4, \dots$

8, 12, 16, 20, ...

$a_1 =$ _____
$d =$ _____

a. Write an *explicit* formula for the sequence.

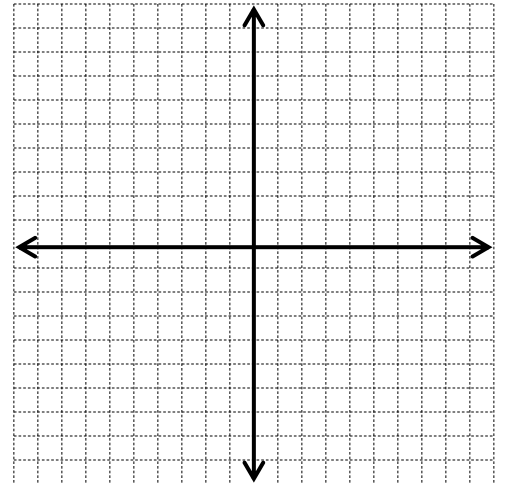
b. Find a_{101} .

5. a. Write an *explicit* equation for the n^{th} term of the arithmetic sequence $-3, 1, 5, 9, \dots$

b. Write the 9th term of the sequence **using the *explicit* equation**. Check your answer by carrying out the sequence nine terms using the common difference.

c. Graph the first five terms of the sequence.

n	a_n	(n, a_n)



6. What is the 200th term of a sequence whose *recursive* formula is $A(n+1) = A(n) - 3, A(1)=5$ for $n \geq 1$?

$$a_{200} = \underline{\hspace{2cm}}$$