Foundations of Algebra Name:

Unit 6 Day 15 Practice

**Determine whether each sequence is an arithmetic sequence. If so, find the common difference and the next three terms.**

1. 6, 12, 18, 24, … *d*: \_\_\_\_\_\_\_\_ Next three terms: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 6, 11, 17, … *d*: \_\_\_\_\_\_\_\_ Next three terms: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 2, 14, 98, 686, … *d*: \_\_\_\_\_\_\_\_ Next three terms: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 160, 80, 40, 20, … *d*: \_\_\_\_\_\_\_\_ Next three terms: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**For problems 1-3, determine the first 4 terms of the sequence.**

1. 2. 3.

  

**For problems 4 – 5, create a RECURSIVE and EXPLICIT rule for each sequence.**

4. 10, 11, 12, 13, … 5. -1, 3, 7, 11, … 6. 14, 25, 36, 47…

Recursive: Recursive: Recursive:

Explicit: Explicit: Explicit:

 9. Two terms of an arithmetic sequence are  and .

 a. What is the common difference?

 b. What are the first four terms of this sequence?

 c. Write the **EXPLICIT** rule for this sequence.

 d. Write the **RECURSIVE** rule for this sequence.