**Day 2: Sequences Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Practice Assignment Block: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

For the following questions, determine if the sequence is arithmetic or geometric. Then write BOTH an explicit and recursive rule. You must also show the simplified version of the explicit rule (arithmetic only).

1. -10, -4, 2, 8, 14, … 2. 1, -2, 4, -8, …

Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 36, 31, 26, 21, … 4. 36, 18, 9, 4.5, ….

Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. 4, 12, 36, 108, … 6. 34, 24, 14, 4, ….

Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Recursive Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Simplified Explicit Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**For each of the following formulas, generate the first five terms:**

7. 8. 9.

  

13. 14. 15.

  

**16. For the given information, use it to create an explicit rule.**

a. Arithmetic: a5 = 15 and a6 = 22 b. Geometric: a3 = 48 and a4 = 192

 c. Arithmetic: a5 = -18 and a6 = -28 d. Geometric: a4 = 250 and a5 = 1250