Math 4 Honors Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lessons 5-6 & 5-7 Review Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Consider the sequence described by the rule:

 a. Circle the type of formula: recursive or explicit

1. Find the first five terms of the sequence.
2. Circle one classification: arithmetic, geometric, or neither.
3. Write the other type of rule for the sequence.

2. Consider the sequence described by the rule:

 a. Circle the type of formula: recursive or explicit

1. Find the first five terms of the sequence.

c. Circle one classification: arithmetic, geometric, or neither.

d. Write the other type of rule for the sequence.

3. Consider the sequence described by the rule:

 a. Circle the type of formula: recursive or explicit

1. Find the first five terms of the sequence.

c. Circle one classification: arithmetic, geometric, or neither.

4. A sequence is defined by the explicit rule: 5. A sequence is defined by the explicit rule:

  Find its recursive rule.  Find its recursive rule. 

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**Show work for 6 − 8:**

6. Expand: . 7. Expand: .

8. Expand: .

9. Write using summation notation: .

10. Let S(*n*) be the statement: 

1. Find and show that it is true for *S*(6).
2. Write recursively.
3. Use (a) and (b) to find 

11. Find the first term of a geometric sequence where .

*No guessing & checking; show your work algebraically.*