Name__________________

ALGEBRA II JOURNAL
Sequences & Series

1. A sequence is ____
   while a series is ____ .

2. (a) $\sum_{n=4}^{7} 2n-1$ is an example of ______________________ notation.

   (b) The example above would be evaluated by ____

   ____ .

3. An arithmetic sequence forms a pattern by ____

   ______________________ while a geometric sequence forms a pattern by ______________________

   ____ .

4. You can determine which geometric series formula to use by ________________________________

   ____ .

5. (a) A series written in summation notation in the form $\sum_{i=a}^{b} pi+q$ will result in a(n) _______________

   series with p as the _____________________________________.

   (b) A series written in summation notation in the form $\sum_{i=a}^{b} p\cdot q^{i}$ will result in a(n) ________________

   series with q as the _____________________________________.

   (c) If a series written in summation notation runs from $i = a$ to b, the number of terms in the series can be calculated by ________________________________.

6. (a) If an infinite geometric series has a finite sum (such as 4197), it is said to ____________________ and this occurs when _______________________________.

   (b) If an infinite geometric series goes to infinity, it is said to ______________________ and this occurs when ________________________________.

7. Important Rules, Formulas, Etc.
   a) Arithmetic sequence & series formulas (2)

   b) Geometric sequence & series formulas (3)

Key
$a_1 =$
$a_n =$
$d =$
$n =$
$r =$
$S_n =$

c) Infinite geometric series formula (1)

d) Fibonacci sequence and explain how it is created