ALGEBRA FOR CALCULUS Stretch I Topics List for Exam 5

**Section 8.1**

Be able to:

* Find an indicated term of a sequence given a formula for the nth term (# 1 – 18 on p.630);
* Find the general term by looking for a pattern (#19-28 on p.630);
* Find indicated partial sums for the sequence (#29 – 50);
* Convert between sigma notation and other notation for a series (#51-60);
* Construct the terms of a recursively defined sequence (like # 61-66).

**Section 8.2**

Be able to:

* Find the *n*th term when *n* is given and *n* when the *n*th term is given in an arithmetic sequence (like #8 – 21 on pp. 638-639);
* Given two terms of an arithmetic sequence, construct the sequence (like # 22-23 on p. 639);
* Find the sum of the first *n* terms of an arithmetic sequence (#24 – 37);
* Solve applied problems using arithmetic sequences or series (#39-45).

**Section 8.3**

Be able to:

* Identify the common ratio of a geometric sequence and find the given term of the sequence (like #11-22 on p. 649);
* Find the sum of the first n terms of a geometric sequencwe (like #23-26);
* Find the sum of an infinite geometric sequence (like #33-50);
* Solve applied problems using arithmetic sequences or series (#57-63).