

EE106 – Engineering Mathematics I

Problem Set 1

Due by 5pm on Friday, 5 October 2018

1. Identify the following three sequences as either *arithmetic*, *geometric* or *neither arithmetic nor geometric*:
 - (a) 2100, 2123, 2146, 2169, \dots , 2330
 - (b) 0.1, 0.11, 0.111, 0.1111, 0.11111
 - (c) 12.3, 1.23, 0.123, 0.0123
2. Write down an arithmetic sequence of six numbers (one that we haven't already seen in lecture or tutorial) and compute the value of its series.
3. Write down a geometric sequence of six numbers (one that we haven't already seen in lecture or tutorial) and compute the value of its series.
4. Compute the sum of the following sequences:
 - (a) The sequence given in Problem 1(a).
 - (b) The geometric sequence of 10 numbers whose first two elements are -1 and 3.