

## Programming Assignment 9

**Assignment Goals: understanding problem requirements; effective program design; logical thinking; regular expressions**

You will submit the program on Blackboard. Name it *yourname\_PA9.py* (replacing *yourname* with your own name).

### **Problem:**

Using the file “dna.txt” posted in Blackboard which contains a made-up DNA sequence, write a program that predicts the fragment lengths that we will get if we digest the sequence with the following made up restriction enzyme – AbcI, whose recognition site is ANT/AAT.

Note: *The forward slash (/) in the recognition site represents the place where the enzyme cuts the DNA, and N represents any valid DNA base such as A, T, G, or C.*

Your program should print out the lengths of each fragment.