1. Below is a diagram of a novel plasmid known as pC101. The plasmid consists of a total of 6300bp. Select restriction sites have already been marked on the plasmid.

   a. What restriction enzymes were used? 

   b. How many restriction enzymes were used? 

   c. How many restriction sites are present on this map? 

   d. Why is the number of restriction sites different than the number of enzymes used? 

   d. If all restriction enzymes were used to cut this plasmid, how many fragments would be produced? 

   e. Calculate the sizes of each fragment that would be produced. Denote the fragment sizes on the map below.