Question 1:

Given a string of at most 100000 characters, print the number of distinct substrings in it. This is a classic problem, use it to test your implementation of suffix array.

Question 2:

Given two strings S and T, each with at most 2000 characters, and an integer k, find the largest x such that there exists a substring s of S and a substring t of T such that both s and t have length x, and s and t differ in at most k positions.

$N \leq 100000$

Question 3:

Given an integer $n(n \leq 10^{12})$ and two strings S and T, each of length at most 10^5, how many times does S appear as a substring of T^n? T^n is n copies of T concatenated together.