**Echo!**

Sami is yelling into a tunnel and is listening back for her echo. She would like to know how many times she can distinctly listen to herself before the echo fades away! She can distinctly hear herself whenever you are given a string, and a given substring is repeated in succession.

**Input:** The first line of input contains **T**, the number of test cases. The next **T** lines contain a string which is what Sami yells and what is echoed.

**Output:** You will first output “CASE #(case number): “ followed by the number of times she can distinctly hear herself.

**Example Input:**

2

abcabcabc

appleapppple

**Example Output:**

CASE #1: 3

CASE #2: 2

**Explanation:** In the first test case, “abcabcabc”, “cabcab”, and “bcabca” are the three substrings where they repeat.

In the second test case, “pp”, and “pppp” are the two test cases where they repeat.