

Problem J. Pizza Restaurant

Input file: *standard input*
 Output file: *standard output*
 Time limit: 1 second
 Memory limit: 1024 mebibytes

You are given n strings s_1, s_2, \dots, s_n . Find any two **different** indices x and y and a **positive** integer k such that the string $s_x \underbrace{s_y s_y \dots s_y}_{k \text{ times}}$ is a palindrome with length at most $6 \cdot 10^6$, or report that it is impossible.

Input

The first line contains a single integer n ($2 \leq n \leq 10^5$).

The next n lines contain n strings s_1, s_2, \dots, s_n , one per line ($1 \leq |s_i| < 10^6$). The strings consist of lowercase English letters. The total length of all strings does not exceed 10^6 .

Output

If there is no answer, output “No” (without quotes).

Otherwise, on the first line, print “Yes” (without quotes). On the second line, print three integers x, y , and k ($1 \leq x, y \leq n$, $x \neq y$, $k \geq 1$, $|s_x| + k \cdot |s_y| \leq 6 \cdot 10^6$). If there are multiple solutions, print any one of them.

Examples

<i>standard input</i>	<i>standard output</i>
2 aa aa	Yes 1 2 1
4 a bb bcb cdc	No
2 ap papajoj	Yes 2 1 2