Problem G. Genetic Modifications

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

DNA of viruses in the galaxy far far away consists of two elements: 'A' and 'B', so it can be represented as the string consisting of letters 'A' and 'B'.

The scientists have two viruses: source virus s and target virus t. They are trying to cut out exactly $|t|$ characters from s in such a way that the following two conditions are fulfilled:

1. The cut out elements make up string t, if placed in the same order as in s.
2. The remaining parts of s must be of form "AA..A" or "BB..B". In other words, there should be no part that contains both 'A' and 'B' at the same time.

Check if the experiment is possible, and if it is possible, help the scientists to achieve their goal.

Input

The first line of the input contains string s, and the second line contains string t ($1 \le |t| \le |s| \le 10^5$). Both strings consist only of 'A' and 'B' characters.

Output

On the first line print "YES" if it is possible to achieve the goal, and "NO" otherwise (without quotes). In case of a positive answer, on the next line print $|t|$ distinct integers in increasing order, which are the positions of characters that shall be cut out from s (1-based index). If multiple answers exist, you may print any one of them.

Examples

standard input	standard output
BBAAABBAAABAAA BAAB	YES 2 5 8 11
ABABABABAB ABAB	NO

Note

In the first sample, after cutting out the given characters, the following parts are left out: "B", "AA", "BB", "AA", "AAA". None of them contain both 'A' and 'B' at the same time.