REMOVING CHARACTERS

Given two strings S_1 and S_2. You are asked to check if it is possible to delete some characters from S_1 to make it become S_2.

Input

The first line is the string S_1 ($0 \leq |S_1| \leq 10^5$)
The second line is the string S_2 ($0 \leq |S_2| \leq 10^5$).
Both strings contain only lowercase characters.

Output

Print "YES" (without quotes) if it is possible to delete some characters from S_1 to make it become S_2, otherwise print "NO".

Sample

Input	Output
abcdb acb	YES
abcdb adc	NO