Fair Competition(Easy)

Input file:	standard input
Output file:	standard output
Time limit:	2 second
Memory limit:	256 megabytes

IIIT-Delhi is organizing a foosball tournament. For that, all the teams that participate will be divided into two pools initially. Since Simran and Pankhuri are foosball champions, they are the organizers of this tournament. Both of them want that competition to start off in a fair manner. For this, they need to ensure that both the pools are equivalent in strength.

Each pool is represented by a string comprising of lower case English alphabets, where each alphabet represents the capability of a team. “a” implies that the team is very strong while “z” means that the team can only win if they are extremely lucky. Rest assured both the pools have an equal number of teams.

Pools are equivalent if the strings representing them are equal. By equal we mean that the order of the alphabets is also the same.
They are also equivalent if when pool A is split in two string of equal length a_1 and a_2 and pool B in two strings of equal length b_1 and b_2 then

1. Either a_1 is equivalent to b_1 and a_2 is equivalent to b_2.
2. Or a_1 is equivalent to b_2 and a_2 is equivalent to b_1.

Simran and Pankhuri being extremely passionate foosball players, are busy playing you know what. It’s upon you to help them in making sure that the competition is fair.

Input

There are two lines of input each containing a string representing the strength of the pool. The strings are of the same length. (1<= Length of the strings <=200)

Output

If the two pools are equivalent print “YES” (without the quotes) else print “NO”(without the quotes).

Example

standard input	standard output
aaba abaa	YES

standard input	standard output
aabb abab	NO

Explanation

In the first sample you should split the first string into strings "aa" and "ba", the second one — into strings "ab" and "aa". "aa" is equivalent to "aa"; "ab" is equivalent to "ba" as "ab" = "a" + "b", "ba" = "b" + "a".

In the second sample, the first string can be split into strings "aa" and "bb", that are equivalent only to themselves. That's why string "aabb" is equivalent only to itself and to string "bbaa".