A. Checking the Calendar

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given names of two days of the week.

Please, determine whether it is possible that during some **non-leap year** the first day of some month was equal to the first day of the week you are given, while the first day of **the next month** was equal to the second day of the week you are given. **Both months should belong to one year**.

In this problem, we consider the Gregorian calendar to be used. The number of months in this calendar is equal to 12. The number of days in months during any non-leap year is: $31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31$.

Names of the days of the week are given with lowercase English letters: "monday", "tuesday", "wednesday", "thursday", "friday", "saturday", "sunday".

Input

The input consists of two lines, each of them containing the name of exactly one day of the week. It's guaranteed that each string in the input is from the set "monday", "tuesday", "wednesday", "thursday", "friday", "saturday", "sunday".

Output

Print "YES" (without quotes) if such situation is possible during some non-leap year. Otherwise, print "
" (without quotes) if such situation is possible during some non-leap year. Otherwise, print "NO" (without quotes).

Examples

input
monday tuesday
output
NO

input
sunday sunday
output
YES

input
saturday tuesday
output
YES

Note

In the second sample, one can consider February 1 and March 1 of year 2015. Both these days were Sundays.

In the third sample, one can consider July 1 and August 1 of year 2017. First of these two days is Saturday, while the second one is Tuesday.