Given a sequence consisting of round, square and curly brackets. Check if it is the correct bracket sequence.

A sequence A is called a regular bracket sequence if it satisfies one of the following conditions:

- A is an empty sequence

- $A = (B)$, where B is the correct bracket sequence

- $A = [B]$, where B is the correct bracket sequence

- $A = B$, where B is the correct bracket sequence

- $A = BC$, where B and C are regular bracket sequences

A single line of input contains a sequence of parentheses, brackets and square brackets. The length of the sequence does not exceed 10^6.

Print **YES** if the sequence is the correct bracket sequence, and **NO** if not.

Sample input:
([])[]
Sample output:
YES

Sample input:
[(])
Sample output:
NO