

## G. Brackets (Hard Version)

time limit per test: 1 second🕒  
memory limit per test: 256 megabytes

A string  $S$  consisting of  $n$  characters is called **properly nested** if:

- $S$  is empty.
- or  $S$  has the form  $(U)$  where  $U$  is a properly nested string.
- or  $S$  has the form  $VW$  where  $V$  and  $W$  are properly nested strings.

For example, the string " $\{[()()]\}$ " is properly nested but " $([()])$ " is not.

You are given a string consisting only of '(', ')', '[', ']', '{' and '}' characters, determine whether the string is properly nested or not.

### Input

The input consists of a string consisting only of '(', ')', '[', ']', '{' and '}' characters.  $|s| \leq 10^5$

### Output

Print *yes* if the string is properly nested, or *no* otherwise.

### Examples

input	Copy
{[()()]}	
output	Copy
yes	

input	Copy
([()])	
output	Copy
no	


input	Copy
((()())())	
output	Copy
yes	

input	Copy
())	
output	Copy
no	

ICPC Assiut University Training - Juniors Phase 1 Sheets-2022

Public

Participant




→ Group Contests

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 ( Binary search , Two pointers )
- Juniors Phase 1 Practice #3 ( STL 2 )
- Juniors Phase 1 Practice #2 ( STL 1 )
- Juniors Phase 1 Practice #1 ( Prefix sum , Frequency Array )

Juniors Phase 1 Practice #2 ( STL 1 ).

Finished

Practice



→ About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
<a href="#">284864715</a>	Oct/08/2024 07:31	Accepted
<a href="#">284864680</a>	Oct/08/2024 07:30	Runtime error on test 4