

# Brackets

Your task is to determine if a sequence of opening and closing brackets is a valid expression. A valid expression is one where every opening bracket has a corresponding closing bracket.

## Input

The input consists of several test cases. The first line of the input is an integer  $0 < n < 500$ .  $n$  lines follow, each one consisting of a sequence of brackets, which represents an expression.

## Output

For each sequence in the input, print “:)” if the sequence is a valid expression, and “:(“ otherwise.

## Example

**Input:**

4

{}

}}{({{

{{}}}}

{{}}}}

**Output:**

:)

:(

:)

:(