Refer to Chapter 8 - Stack for the stack application. The stack can be used to check if parentheses in an expression are balanced. Compilers generate errors if parentheses do not match.

Write a program to examine whether parentheses are balanced in expressions. (Note: The expression entered by the user.)

The following are examples of balanced and unbalanced expressions.

Example of balanced expression.

Please enter an expression: (a+b)
The expression is balanced.


Example of unbalanced expression.

Please enter an expression: ((a+b)*2
The expression is not balanced.