

A balanced delimiter starts with an opening character ((, [, {), ends with a matching closing character (,], } respectively), and has only other matching delimiters in between. A balanced delimiter may contain any number of balanced delimiters.

Examples

The following are examples of balanced delimiter strings:

(){}

({})

{()}

The following are examples of invalid strings:

()]

([

{}

{}

Input is provided as a single string. Your output should be True or False according to whether the string is balanced. For example:

Input:

({})

Output:

True