

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

```
def is_balanced(input_str):
    stack = []
    opening_chars = "([{"
    closing_chars = ")]}"

    for char in input_str:
        if char in opening_chars:
            stack.append(char)
        elif char in closing_chars:
            if not stack:
                return False
            if opening_chars.index(stack.pop()) != closing_chars.index(char):
                return False
    return not stack

input_str = input("Enter a string of delimiters: ")
result = is_balanced(input_str)
print(result)
```

### OUTPUT

Enter a string of delimiters: ()[]{}  
True

True

Enter a string of delimiters: {[()]}

True

Enter a string of delimiters: ({}[[]])

False

```
def is_balanced(s):
    pairs = {'(': ')', '[': ']', '{': '}', '}': '{',
             ']' : '[', ')' : '('}
    stack = []
    for char in s:
        if char in pairs.values():
            stack.append(char)
        elif char in pairs.keys():
            if not stack or pairs[char] != stack.pop():
                return False
    return not stack
```

```
print(is_balanced("([{}])")) # Output: True
```