

---

## Parentheses

P35352\_en

Olimpiada Informática Española — Final 2007 (2007)

---

Your task is to write a program that determines, for each given word, if it is correctly parenthesized or not. Here, a word is a non empty sequence of '(', ')', '[' and ']' without intermediate spaces.

For instance, these are some words correctly parenthesized:

`() [] ()[] [()] ((( ))) ()[]([]) ([[]()](()))`

And these are some words incorrectly parenthesized:

`) [] ) ([ ] ) ( ) [ ( ( ) ) ( ) [ ] [ ] ( ( [ ] ( ) ) ( (`

### Input

The input consists of a series of words of between 1 and 1000 characters, one per line.

### Output

For each given word, your program must print "correct" or "incorrect" as required.

### Scoring

- **TestA:**

**30 Points**

Some test cases will include words like the ones in the instance 1, that is, only with the characters ' ( ' y ' ) ' '.

- **TestB:**

**70 Points**

Other test cases will include words with the characters ' ( ' , ' ) ' , ' [ ' y ' ] ' '.

### Sample input 1

```
()
(
()()
((( )))
)(
(( ))( ))
```

### Sample output 1

```
correct
incorrect
correct
correct
incorrect
incorrect
```

### Sample input 2

```
[]
()[ ]
[ ( ) ]
([ [ ] ( ) ] ( ( ) ) )
[ ]
([ [ ] ( ) ] ( (
```

### Sample output 2

```
correct
correct
correct
correct
incorrect
incorrect
```

## **Problem information**

Author : Omer Giménez

Translator : Carlos Molina

Generation : 2014-01-29 10:47:51

© *Jutge.org*, 2006–2014.

<http://www.jutge.org>