Problem E   Parenthese sequence

bobo found an ancient string. The string contains only three charaters – "(", ")" and "?".

bobo would like to replace each "?" with "(" or ")" so that the string is valid (defined as follows). Check if the way of replacement can be uniquely determined.

Note:

- An empty string is valid.
- If S is valid, (S) is valid.
- If U, V are valid, UV is valid.

Input

A string $s_1 s_2 \ldots s_n$ $(1 \le n \le 10^6)$.

Output

If there is unique valid string, print "Unique". If there are no valid strings at all, print "None". Otherwise, print "Many".

Sample input

```
??
```

Sample output 1

```
Unique
```

Sample input 2

```
????
```

Sample output 2

```
Many
```

Sample input 3

```
(??
```

Sample output 3

```
None
```