Brackets and Question Marks

Task: You are given a sequence that contains three symbols: (,), and ?. The task is to figure out if you can replace the question marks by brackets such that a legal bracket term is generated. A bracket term is legal if at any point in the sequence of (and), the number of (up to that point is greater or equal to the number of) up to that point, and additionally, the total number of (and) is equal.

For this task, you have a computer at your disposal, but it is stone-aged and has very little main memory. It is even overburdened with storing the sequence of brackets and question marks.

Note: Solve this task in C++.

Input: A line containing a sequence of (,) and ?.

Note: Be sure to handle line breaks correctly; each line may have a unix-style (`'\n'`) or a windows-style (`'\r\n'`) linebreak, or (if it is the last line) no linebreak at all.

Output: Output 1 if it is possible to replace all ? such that a legal bracket term is the result, and 0 otherwise.

Sample Input 1:

```
((??))
```

Sample Output 1:

```
1
```

Sample Input 2:

```
((?))
```

Sample Output 2:

```
0
```