CODEFORCES β
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PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   HACKS   STANDINGS   CUSTOM INVOCATION

A. BubbleReactor

time limit per test: 1.5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are in charge of the BubbleReactor. It consists of N BubbleCores connected with N lines of electrical wiring. Each electrical wiring connects two distinct BubbleCores. There are no BubbleCores connected with more than one line of electrical wiring.

Your task is to start the BubbleReactor by starting each BubbleCore. In order for a BubbleCore to be started it needs to be receiving power from a directly connected BubbleCore which is already started. However, you can kick-start one BubbleCore manually without needing power. It is guaranteed that all BubbleCores can be started.

Before the BubbleCore boot up procedure its potential is calculated as the number of BubbleCores it can power on (the number of inactive BubbleCores which are connected to it directly or with any number of inactive BubbleCores in between, itself included)

Start the BubbleReactor so that the sum of all BubbleCores' potentials is maximum.

Input
First line contains one integer $N(3 \leq N \leq 15.000)$, the number of BubbleCores.

The following N lines contain two integers $U, V(0 \leq U \neq V < N)$ denoting that there exists electrical wiring between BubbleCores U and V.

Output
Single integer, the maximum sum of all BubbleCores' potentials.

Example

input   Copy

```
10
0 1
0 3
0 4
0 9
1 2
2 3
2 7
4 5
4 6
7 8
```

output   Copy

```
51
```

Note
If we start by kickstarting BubbleCup 8 and then turning on cores 7, 2, 1, 3, 0, 9, 4, 5, 6 in that order we get potentials 10 + 9 + 8 + 7 + 6 + 5 + 1 + 3 + 1 + 1 = 51

Bubble Cup 12 - Finals [Online Mirror, unrated, Div. 1]

Finished

Practice

⭐

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

[Clone Contest]

→ Submit?

Language: [GNU G++11 5.1.0   ▼]

Choose file: [选择文件] 未选择任何文件

[Submit]

→ Problem tags

dp   graphs   *2800

No tag edit access

→ Contest materials

- Announcement (en)   ✕
- Statements (en)   ✕
- Tutorial (en)   ✕

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