All Contests ❯ ALCoding Summer Long challenge 4 ❯ Let's Party

Let's Party

by Code_Addict

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Alguru invited N people to his party. In this group, each person has no best friends or exactly one best friend, who has also been invited to the party. A person A is said to be the friend of a person B if at least one of this is true:

- Person A is the close friend of person B.

- Person B has a close friend person C such that A is a friend of C.

For example : If 3 is a close friend of 5, and 4 is a close friend of 3, all 3,4 and 5 are considered to be friends.

Alguru wanted to play a game in the party. This involves dividing all N people into several groups: every person must belong to exactly one group. ALso, in any group, there must not be two people A and B such that A is a friend of B.

Help Alguru find the minimum number of groups that can be formed.

Input Format

The first line contains N, the number of people invited to the party. The next N lines contain one integer each. The integer in the i_{th} denotes the number of the person who is a close friend to person i. If the i_{th} integer is -1, then person i has no close friends.

Note : The people invited to the party are numbered 1 to N.

Constraints

1 <= N <= 2000

Output Format

Print a single integer denoting the minimum number of groups that can be formed to play the game.

Sample Input 0

```
5
2
−1
4
−1
−1
```

Sample Output 0

```
2
```

Explanation 0

The minimum groups that can be formed are 2. One possible combination is group 1 containing person 1, 3 and 5. And group 2 containing person 2 and 4.

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Contest ends in 7 hours

Submissions: 20
Max Score: 6

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```cpp
1  #include <cmath>
2  #include <cstdio>
3  #include <vector>
4  #include <iostream>
5  #include <algorithm>
6  using namespace std;
7
8
9  int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12  }
```

Line: 1 Col: 1

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