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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Getting Started With Competitive Programming (course)

Click to register for Certification exam (https://examform.nptel.ac.in/2023_10/exam_form/dashboard)

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Week 1 Practice Programming Assignment 2

Due on 2023-10-29, 23:59 IST

Course outline

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

- Welcome and Initial Setup (unit?unit=17&lesson=18)

At a party, there are n cups of gulab jamun arranged in a circle. A fly is sitting in one of the cups at the moment.

After minute number k, the fly jumps *over* k - 1 cups (clockwise) and lands and the next one. For example, after the first minute the fly ends up at the neighboring cup, and after that at the third cup from the start.

You should answer: will the fly visit all the cups or not?

We assume that fly is jumping forever.

Input. The only line contains single integer: $1 \le n \le 1000$ — number of cups.

Output. Output "YES" if all the cups will be visited and "NO" otherwise.

Examples.

```
input

1

output

YES
```

```
input
3

output

NO
```

Your last recorded submission was on 2023-07-28, 17:20 IST

Select the Language for this assignment. C++

```
1  using namespace std;
2  #include <iostream>
3  #include <set>
4
5  int main()
6  {
7      set<int> mods;
8      int place=0;
9      int time=1;
10     int nextPlace;
11     int mod;
12     int n;
13     cin>>n;
```

- Week 1 Practice Programming Assignment 2 (/noc23_cs103/progassignment?name=244)
- Week 2 ()
- Download Videos ()
- Transcripts ()


```
14      do
15      {
16          nextPlace = place + time;
17          mod=nextPlace%n;
18          if(mod==0)
19              break;
20          mods.insert(mod);
21          place=nextPlace;
22          time=time+1;
23      }while(1);
```

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft | Compile & Run | Submit | Reset

Private Test cases used for Evaluation	Status
Test Case 1	Passed
Test Case 2	Passed
Test Case 3	Passed
Test Case 4	Passed
Test Case 5	Passed
Test Case 6	Passed
Test Case 7	Passed
Test Case 8	Passed