



IEMCO (IEM Coding Olympiad) Level 2

LIVE

INVITE ONLY



8

LIVE EVENTS

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Team Up

Max. Marks: 25

You have created a new community for coders. The coders can request for x other coders from the community for taking part in a coding contest. E.g. if a coder wants to have 5 other coders he/she will put up a request of 5, and if he wants to participate alone, he doesn't request at all. Now for participating in different contests, the coders send friend requests to each other. some coders may want to participate in teams while some may want to participate alone (to be the hero!!) and sends no request. You are asked to make a list for each of these coders based on their requests. You are not sure whether it is actually possible. Thus before you proceed you would like to write a program, that given a list of N coders requesting w_i , output "LIKE" if it is possible to make a list for each coder of length w_i , or "DISLIKE" if some coder will have to get more or fewer partners than he/she requested for.

Notice: Being partners in a team is considered a reflexive relation.

Input The first line will contain a single integer T - the number of test cases to process. Because of I/O constraints, the sequence of requests is not given explicitly. Each of the T lines will consist of 5 integers N, a, b, c, m . These integers describe the sequence $x_0 = 0$ $x_{i+1} = (a * x_i + b) \% m$ The sequence of requests is $w_i = x_i + c$.

Output Write the answer - LIKE or DISLIKE- for each test case on a separate line.

Constraints: $1 \leq T \leq 5$ $0 \leq N, a, b, c \leq 10^5$ $1 \leq m \leq 10^5$

Sample Input [\(Plaintext Link\)](#)

```
3
3 2 1 0 2
5 1 1 0 5
6 1 1 1 3
```

Sample Output ([Plaintext Link](#))

LIKE
DISLIKE
LIKE

Explanation

In the first case you get the requests "0 1 1", and we can make coders 2 and 3 be team-mates.

In the second case you get the requests "0 1 2 3 4". No assignment that works, since coder 5 would have to be team-mates with everyone, but coder 1 doesn't want that.

Time Limit: 5.0 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded when all the testcases pass.

Allowed languages: C, CPP, CLOJURE, CSHARP, GO, HASKELL, JAVA, JAVASCRIPT, JAVASCRIPT_NODE, LISP, OBJECTIVEC, PASCAL, PERL, PHP, PYTHON, RUBY, R, RUST, SCALA

C (gcc 4.8.4) ▼

Upload file: No file chosen



All changes saved

```

1  #include<stdio.h>
2  #include<stdlib.h>
3
4  int x[1000000];
5
6  int cmp(const void *a, const void *b){
7      return *(int*)a<*(int*)b?1:0;
8  };
9
10 int main(){
11     int N,t,a,b,c,m,i,j,k,mark;
12     scanf("%d",&t);
13     x[0]=0;
14     while(t--){
15         scanf("%d%d%d%d%d",&N,&a,&b,&c,&m);
16         mark=0;
17         x[0]=c;
18         for(i=1;i<N;i++){
19             x[i]=(a*(x[i-1]-c)+b)%m;
20             x[i]+=c;
21             if(x[i]>=N){
22                 mark=1;
23                 break;
24             }
25         }
26         if(mark==0){

```

```
27     qsort(x,N,sizeof(int),cmp);
28 }
29 for(i=0;i<N-1;i++){
30     if(x[i]==0){
31         continue;
32     }
33     for(j=i+1;j<N;j++){
34         if(x[j]>0){
35             x[j]--;
36             x[i]--;
37         }
38         if(x[i]==0){
39             break;
40         }
41     }
42     if(x[i]>0){
43         mark=1;
44         break;
45     }
46 }
47 if(x[N-1]>0){
48     mark=1;
49 }
50 if(mark==0){
51     printf("LIKE\n");
52 }
53 else{
54     printf("DISLIKE\n");
55 }
56 }
57 return 0;
58 }
59
```

 Press ctrl-space for autocomplete suggestions.

[Submit](#)[Compile & Test](#)[Provide custom input](#)[▶ Play Code \(C\)](#)

SUBMISSION RESULT

[Judge Environment](#)

Submission ID:	Result	Score	Time (sec)	Memory
3811523	25	25	1.935041	(KiB)
3 seconds ago	Accepted			4232

Language
C

Result	Score	Time (sec)	Memory (KiB)
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Input #1

Accepted


0.0

1.935041

4232

Compilation Log

No compilation log for this submission.

 **Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

Your Rating: ★★★★★

COMMENTS (0)



Start Discussion...

Cancel

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RECENT SUBMISSIONS



DEVELOPERS	RESULT	LANGUAGE
Sampreet...	1.935041	C
Shrirupa...	0.101218	C++
Rohit An...	0.100793	C++
Rohit An...	0.100512	C++
Shrirupa...	0.100637	C++
Rohit An...	0.0	C++
Sandip_J...	0.100887	C++
SOUPARNO...	0.100754	C++
Sandip_J...	0.100534	C++
Nikhil C...	0.100514	C++
Minesh G...	0.100564	C++
Deep Ban...	0.100661	C++
Minesh G...	0.0	C++
Arpan Mukherjee		C++

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