**Fredo and Game**

Attempted by: **4489**

/

Accuracy: **92%**

/

Maximum Score: **20**

/

59 Votes

Tag(s):

Basic Programming, Easy

**PROBLEM**

**EDITORIAL**

**MY SUBMISSIONS**

**ANALYTICS**

Fredo is playing a game. The rules of the game are:  
Initially, you are given *A* units of ammo. There are *N* obstacles placed on a path. When you hit an obstacle, you **gain three units ammo** and **lose one unit of ammo**. When you don't hit an obstacle, you **lose one unit ammo**. If at any instance, you are left with *0* ammo units, the game ends there.

Fredo has an array Arr containing *N* elements corresponding to the *N* obstacles. If Fredo will hit obstacle *i* , then Arr[i]=1 else Arr[i]=0.  
Fredo asks you to tell him if he will be able to reach the end of the path. If yes, then also tell him the remaining number of ammo units.  
If he is not able to reach the end of the path, tell him the obstacle index at which his game would end.

**Note**: If Fredo reaches the last obstacle, he is said to reach the end of the path.

**Input Format**:  
The first line consists of an integer *T* , denoting the number of test cases.  
Each test cases consists of two lines:  
The first line consists of two integers *A* and *N*, denoting the initial ammo units Fredo has and the number of obstacles respectively.  
The second line consists of array Arr as described in the question.

**Output Format**:  
For each test case:  
If he is able to reach the end of the path, print **Yes** followed by the number of ammo units remaining.  
Else print **No** followed by the index (1 based) of the obstacle at which the game ends.

**Input Constraints**:  
1≤T≤10  
1≤A≤105  
1≤N≤105  
0≤Arr[i]≤1

**SAMPLE INPUT**

2

5 5

0 0 1 0 1

2 5

0 0 1 0 1

**SAMPLE OUTPUT**

Yes 6

No 2

**Explanation**

Test case *1*:  
Initially he has *5* units of ammo.  
at first obstacle, he is left with *4* units of ammo.(he loses one ammo unit at this obstacle)  
at second obstacle, he is left with *3* units of ammo.  
at third obstacle, he is left with 3+3−1=5 units of ammo.(he gains three and loses one ammo unit)  
at fourth obstacle,he is left with *4* ammo units.  
at fifth obstacle, he is left with *6* ammo units.  
Answer: Yes *6*

Test case *2*:  
The game ends at obstacle *2* as he is left with *0* ammo units there.

**Time Limit:**1.0 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, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

#include <iostream>

using namespace std;

int main()

{

int t,a,n,arr[100000],i;

int c=0;

cin >>t;

while(t--)

{

int c=0;

cin>>a>>n;

for(i=0;i<n;i++)

{

cin>>arr[i];

}

for(i=0;i<n;i++)

{

if(a==0)

{

c=1;

break;

}

else

{

if(arr[i]==1)

a=a+2;

else

a=a-1;

}

}

if(c==1)

cout<<"No"<<" "<<i<<endl;

else

cout<<"Yes"<<" "<<a<<endl;

}

return 0;

}