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# Jumping on the Clouds

by Shafaet

Problem

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Emma is playing a new mobile game involving  $n$  clouds numbered from  $0$  to  $n - 1$ . A player initially starts out on cloud  $c_0$ , and they must jump to cloud  $c_{n-1}$ . In each step, she can jump from any cloud  $i$  to cloud  $i + 1$  or cloud  $i + 2$ .

There are two types of clouds, *ordinary clouds* and *thunderclouds*. The game ends if Emma jumps onto a thundercloud, but if she reaches the last cloud (i.e.,  $c_{n-1}$ ), she wins the game!



Can you find the minimum number of jumps Emma must make to win the game? It is guaranteed that clouds  $c_0$  and  $c_{n-1}$  are ordinary-clouds and it is *always possible* to win the game.

## Input Format

The first line contains an integer,  $n$  (the total number of clouds).

The second line contains  $n$  space-separated binary integers describing clouds  $c_0, c_1, \dots, c_{n-1}$ .

- If  $c_i = 0$ , the  $i^{th}$  cloud is an ordinary cloud.
- If  $c_i = 1$ , the  $i^{th}$  cloud is a thundercloud.

## Constraints

- $2 \leq n \leq 100$
- $c_i \in \{0, 1\}$
- $c_0 = c_{n-1} = 0$

## Output Format

Print the minimum number of jumps needed to win the game.

## Sample Input 0

```
7
0 0 1 0 0 1 0
```

## Sample Output 0

4

Sample Input 1

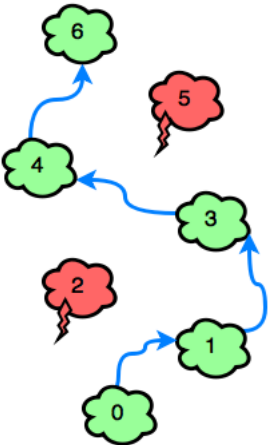
```
6
0 0 0 0 1 0
```

Sample Output 1

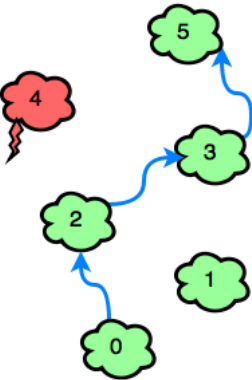
3

Explanation

Sample Case 0:  
Because  $c_2$  and  $c_5$  in our input are both 1, Emma must avoid  $c_2$  and  $c_5$ . Bearing this in mind, she can win the game with a minimum of 4 jumps:



Sample Case 1:  
The only thundercloud to avoid is  $c_4$ . Emma can win the game in 3 jumps:



Easy

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C++14  

```
1 #include <iostream>
2 #include <vector>
3 #include <algorithm>
4 #include <iterator>
5 #include <cassert>
6 #define speed std::ios_base::sync_with_stdio(false); std::cin.tie(nullptr); std::cout.tie(nullptr)
7
8 int main()
9 {
10     speed;
11     int N; std::cin>>N;
12     assert(2<=N && N<=100);
13
14     std::vector<int> vec; vec.reserve(N);
15     copy_n(std::istream_iterator<int>(std::cin), N, back_inserter(vec));
16
17     int count = 0;
18     for(size_t i=0; i<vec.size()-1;)
19     {
20         if(vec[i+2] != 1)
21         {
22             ++count;
23             i += 2;
24             //std::cout <<"if "<<i<<" "<< count << std::endl;
25         }
26         else
27         {
28             ++count;
29             ++i;
30             //std::cout <<"else "<<i<<" "<< count << std::endl;
31         }
32     }
33     std::cout << count << std::endl;
34     return 0;
35 }
36
```

Line: 30 Col: 15

 [Upload Code as File](#) ☐ Test against custom input[Run Code](#)[Submit Code](#)

## Congrats, you solved this challenge!

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✓ Test Case #0

✓ Test Case #1

✓ Test Case #2

✓ Test Case #3

✓ Test Case #4

✓ Test Case #5

✓ Test Case #6

✓ Test Case #7

✓ Test Case #8

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