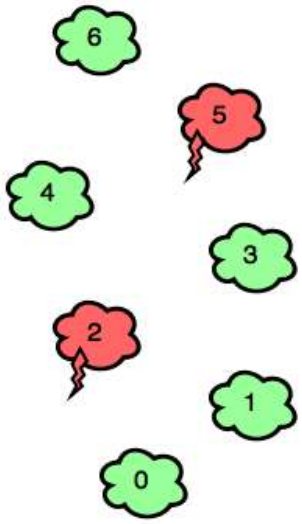
Jumping on the Clouds

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 $c_0, c_1, \ldots, c_{n-1}$.

- 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

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4
```

Sample Input 1

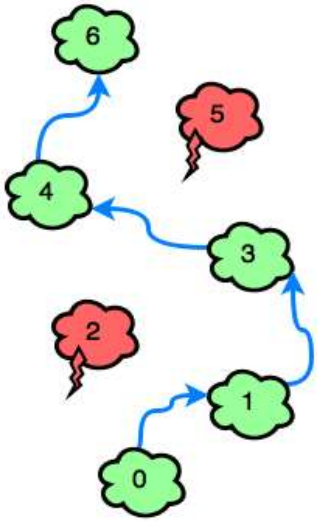
```
6
0 0 0 0 1 0
```

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: