



Jumping on the Clouds: Revisited

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Problem

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Aerith is playing a cloud game! In this game, there are n clouds numbered sequentially from 0 to $n - 1$. Each cloud is either an *ordinary cloud* or a *thundercloud*.

Aerith starts out on cloud 0 with energy level $E = 100$. She can use 1 unit of energy to make a jump of size k to cloud $(i + k) \% n$, and she jumps until she gets back to cloud 0 . If Aerith lands on a thundercloud, her energy (E) decreases by 2 additional units. The game ends when Aerith lands back on cloud 0 .

Given the values of n , k , and the configuration of the clouds, can you determine the final value of E after the game ends?

Note: Recall that $\%$ refers to the [modulo operation](#).

Input Format

The first line contains two space-separated integers, n (the number of clouds) and k (the jump distance), respectively.

The second line contains n space-separated integers describing the respective values of clouds c_0, c_1, \dots, c_{n-1} . Each cloud is described as follows:

- If $c_i = 0$, then cloud i is an *ordinary cloud*.
- If $c_i = 1$, then cloud i is a *thundercloud*.

Constraints

- $2 \leq n \leq 25$
- $1 \leq k \leq n$
- $n \% k = 0$
- $c_i \in \{0, 1\}$

Output Format

Print the final value of E on a new line.

Sample Input

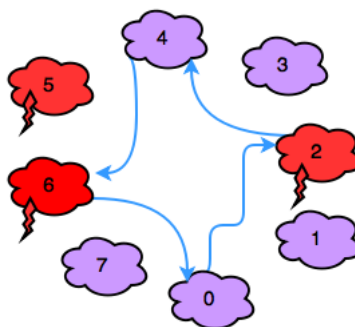
```
8 2
0 0 1 0 0 1 1 0
```

Sample Output

```
92
```

Explanation

In the diagram below, *red* clouds are thunderclouds and *purple* clouds are ordinary clouds:



Observe that our thunderclouds are the clouds numbered **2**, **5**, and **6**. Aerith makes the following sequence of moves:

1. Move: $0 \rightarrow 2$, Energy: $E = 100 - 1 - 2 = 97$.
2. Move: $2 \rightarrow 4$, Energy: $E = 97 - 1 = 96$.
3. Move: $4 \rightarrow 6$, Energy: $E = 96 - 1 - 2 = 93$.
4. Move: $6 \rightarrow 0$, Energy: $E = 93 - 1 = 92$.

Thus, we print **92** as our answer.

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Submissions: 28580

Max Score: 15

Difficulty: Easy

Rate This Challenge:

☆☆☆☆☆

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Current Buffer (saved locally, editable)

Java 7



```

1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         Scanner in = new Scanner(System.in);
11         int n = in.nextInt();
12         int k = in.nextInt();
13         int c[] = new int[n];
14         for(int c_i=0; c_i < n; c_i++){
15             c[c_i] = in.nextInt();
16         }
17     }
18 }
19 
```

Line: 1 Col: 1

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

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