Birthday Chocolate

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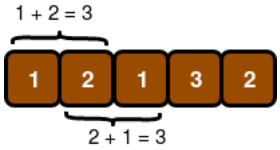
Problem Submissions Leaderboard Discussions

Lily has a chocolate bar consisting of a row of n squares where each square has an integer written on it. She wants to share it with Ron for his birthday, which falls on month m and day d. Lily only wants to give Ron a piece of chocolate if it contains m consecutive squares whose integers sum to d.

Given m, d, and the sequence of integers written on each square of Lily's chocolate bar, how many different ways can Lily break off a piece of chocolate to give to Ron?

For example, if $m = 2$, $d = 3$ and the chocolate bar contains n rows of squares with the integers $[1, 2, 1, 3, 2]$ written on them from left to right, the following diagram shows two ways to break off a piece:



Input Format

The first line contains an integer denoting n (the number of squares in the chocolate bar).
The second line contains n space-separated integers describing the respective values of $s_0, s_1, \ldots, s_{n-1}$ (the numbers written on each consecutive square of chocolate).
The third line contains two space-separated integers describing the respective values of d (Ron's birth *day*) and m (Ron's birth *month*).

Constraints

- $1 \leq n \leq 100$
- $1 \leq s_i \leq 5$, where $(0 \leq i < n)$
- $1 \leq d \leq 31$
- $1 \leq m \leq 12$

Output Format

Print an integer denoting the total number of ways that Lily can give a piece of chocolate to Ron.

Sample Input 0

```
5
1 2 1 3 2
3 2
```

Sample Output 0

```
2
```

Explanation 0

This sample is already explained in the problem statement.

Sample Input 1

```
6
1 1 1 1 1 1
3 2
```

Sample Output 1

```
0
```

Explanation 1

Lily only wants to give Ron $m = 2$ consecutive squares of chocolate whose integers sum to $d = 3$. There are no possible pieces satisfying these constraints:

Thus, we print 0 as our answer.

Sample Input 2

```
1
4
4 1
```

Sample Output 2

```
1
```

Explanation 2

Lily only wants to give Ron $m = 1$ square of chocolate with an integer value of $d = 4$. Because the only square of chocolate in the bar satisfies this constraint, we print 1 as our answer.

Contest ends in 2 days

Submissions: 1516
Max Score: 10
Difficulty: Easy

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Current Buffer (saved locally, editable) C#

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
class Solution {

    static void Main(String[] args) {
        int n = Convert.ToInt32(Console.ReadLine());
        string[] squares_temp = Console.ReadLine().Split(' ');
        int[] squares = Array.ConvertAll(squares_temp,Int32.Parse);
        string[] tokens_d = Console.ReadLine().Split(' ');
        int d = Convert.ToInt32(tokens_d[0]);
        int m = Convert.ToInt32(tokens_d[1]);
        // your code goes here

          int ans = 0;
```

```
17
18              int sum = 0;
19              for (int i = 0; i < m; i++)
20              {
21                  sum += squares[i];
22              }
23              if (sum == d)
24              {
25                  ans++;
26              }
27
28              for (int i = 0; i + m < squares.Length; i++)
29              {
30                  sum -= squares[i];
31                  sum += squares[i + m];
32
33                  if (sum == d)
34                  {
35                      ans++;
36                  }
37              }
38
39              Console.WriteLine(ans);
40      }
41  }
42
```

Line: 39 Col: 36

Upload Code as File Test against custom input Run Code Submit Code