Subarray Division

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Two children, Lily and Ron, want to share a chocolate bar. Each of the squares has an integer on it.

Lily decides to share a contiguous segment of the bar selected such that:

- The length of the segment matches Ron's birth month, and,
- The sum of the integers on the squares is equal to his birth day.

Determine how many ways she can divide the chocolate.

Example

$s = [2, 2, 1, 3, 2]$

$d = 4$

$m = 2$

Lily wants to find segments summing to Ron's birth day, $d = 4$ with a length equalling his birth month, $m = 2$. In this case, there are two segments meeting her criteria: $[2, 2]$ and $[1, 3]$.

Function Description

Complete the birthday function in the editor below.

birthday has the following parameter(s):

- int s[n]: the numbers on each of the squares of chocolate
- int d: Ron's birth day
- int m: Ron's birth month

Returns

- int: the number of ways the bar can be divided

Input Format

The first line contains an integer n, the number of squares in the chocolate bar.

The second line contains n space-separated integers $s[i]$, the numbers on the chocolate squares where $0 \leq i < n$.

The third line contains two space-separated integers, d and m, Ron's birth day and his birth month.

Constraints

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

Sample Input 0

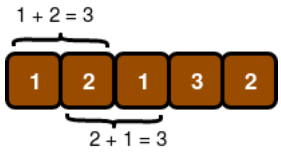
```
5
1 2 1 3 2
3 2
```

Sample Output 0

```
2
```

Explanation 0

Lily wants to give Ron $m = 2$ squares summing to $d = 3$. The following two segments meet the criteria:



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.

Change Theme Language C++14

```
16   *  3. INTEGER m
17   */
18
19  int sum(vector<int> a , int start , int end) {
20      int sum = 0 ;
21      for(int i = start ; i <= end ; i++) {
22          sum += a[i] ;
23      }
24
25      return sum ;
26  }
27
28  int birthday(vector<int> s, int d, int m) {
29      int start = 0;
30      int end = m -1 ;
31      int ans = 0 ;
```

```
32
33      while(end < s.size()) {
34          if(sum(s , start , end) ==  d) {
35              ans++;
36          }
37
38          start++;
39          end++;
40      }
41
42      return ans;
43  }
44
45  int main()
46  {
```

Line: 42 Col: 16

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

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64% 716/850

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You solved this challenge. Would you like to challenge your friends?

Next Challenge

- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5
- Test case 6

Compiler Message

Success

Input (stdin) Download

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

Expected Output Download

```
2
```