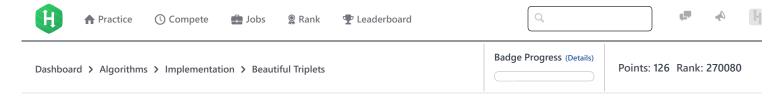
15/11/2017 HackerRank



# Beautiful Triplets



Problem Submissions Leaderboard Discussions Editorial

Erica wrote an increasing sequence of n numbers  $(a_0,a_1,\ldots,a_{n-1})$  in her notebook. She considers a triplet  $(a_i,a_j,a_k)$  to be beautiful if:

- i < j < k
- $\bullet \ \ a[j]-a[i]=a[k]-a[j]=d$

Given the sequence and the value of d, can you help Erica count the number of beautiful triplets in the sequence?

# **Input Format**

The first line contains 2 space-separated integers, n (the length of the sequence) and d (the beautiful difference), respectively. The second line contains n space-separated integers describing Erica's increasing sequence,  $a_0, a_1, \ldots, a_{n-1}$ .

#### **Constraints**

- $1 \le n \le 10^4$
- $1 \le d \le 20$
- $0 \le a_i \le 2 \times 10^4$
- $ullet \ a_i > a_{i-1} \ ext{for} \ 0 < i \leq n-1$

## **Output Format**

Print a single line denoting the number of beautiful triplets in the sequence.

# Sample Input

7 3 1 2 4 5 7 8 10

# **Sample Output**

3

### **Explanation**

Our input sequence is 1, 2, 4, 5, 7, 8, 10, and our beautiful difference d = 3. There are many possible triplets  $(a_i, a_j, a_k)$ , but our only beautiful triplets are (1, 4, 7), (4, 7, 10) and (2, 5, 8). Please see the equations below:

$$7-4=4-1=3=d$$
  
 $10-7=7-4=3=d$   
 $8-5=5-2=3=d$ 

Recall that a beautiful triplet satisfies the following equivalence relation: a[j] - a[i] = a[k] - a[j] = d where i < j < k.

15/11/2017 HackerRank

f in Submissions:<u>15307</u>
Max Score:20
Difficulty: Easy
Rate This Challenge:
☆☆☆☆☆

```
Current Buffer (saved locally, editable) & 49
                                                                                           Java 7
                                                                                                                             Ö
 1 ▼ import java.io.*;
 2 import java.util.*;
 3 import java.text.*;
    import java.math.*;
 5
    import java.util.regex.*;
 6
 7 ▼ public class Solution {
 8
 9 ₹
         public static void main(String[] args) {
10 ▼
             /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11
12
    }
                                                                                                                     Line: 1 Col: 1
                      ☐ Test against custom input
                                                                                                        Run Code
                                                                                                                      Submit Code
1 Upload Code as File
```

Join us on IRC at #hackerrank on freenode for hugs or bugs.

Contest Calendar | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature