

Contest Duration: 2025-06-07(Sat) 08:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250607T2100&p1=248>) - 2025-06-07(Sat) 09:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250607T2240&p1=248>) (local time) (100 minutes)

[Back to Home \(/home\)](#)
[🏠 Top \(/contests/abc409\)](#)
[☰ Tasks \(/contests/abc409/tasks\)](#)
[❓ Clarifications \(/contests/abc409/clarifications\)](#)
[🚀 Submit \(/contests/abc409/submit?taskScreenName=abc409_c\)](#)
[☰ Results ▼](#)
[⬇️ Standings \(/contests/abc409/standings\)](#)
[⬇️ Virtual Standings \(/contests/abc409/standings/virtual\)](#)
[🔧 Custom Test \(/contests/abc409/custom_test\)](#)
[📖 Editorial \(/contests/abc409/editorial\)](#)
[💬 Discuss \(https://codeforces.com/blog/entry/143567\)](https://codeforces.com/blog/entry/143567)


C - Equilateral Triangle

[Editorial \(/contests/abc409/tasks/abc409_c/editorial\)](#)


Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 300 points

Problem Statement

There is a circle with circumference L , and points $1, 2, \dots, N$ are placed on this circle. For $i = 1, 2, \dots, N - 1$, point $i + 1$ is located at a position that is d_i clockwise from point i on the circle.

Find the number of integer triples (a, b, c) ($1 \leq a < b < c \leq N$) that satisfy both of the following conditions:

- The three points a, b , and c are all at different positions.
- The triangle with vertices at the three points a, b , and c is an equilateral triangle.

Constraints

- $3 \leq L, N \leq 3 \times 10^5$
- $0 \leq d_i < L$
- All input values are integers.

2025-06-07 (Sat)
09:46:17 -04:00

Input

The input is given from Standard Input in the following format:

```
 $N \quad L$   
 $d_1 \quad d_2 \quad \dots \quad d_{N-1}$ 
```

Output

Output the answer.

Sample Input 1

[Copy](#)

```
5 6  
4 3 1 2
```

[Copy](#)

Sample Output 1

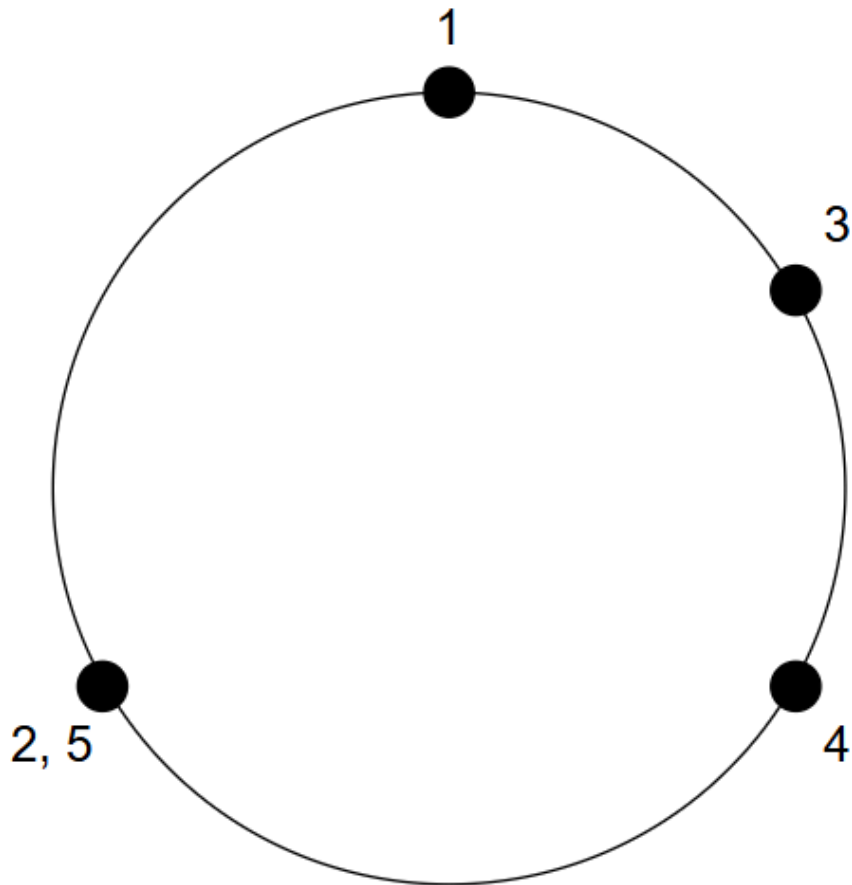
[Copy](#)

```
2
```

[Copy](#)

The arrangement of the five points is as follows. Two pairs satisfy the conditions:

$(a, b, c) = (1, 2, 4), (1, 4, 5)$.



Sample Input 2

[Copy](#)

```
4 4
1 1 1
```

[Copy](#)

Sample Output 2

[Copy](#)

```
0
```

[Copy](#)

Sample Input 3

[Copy](#)

```
10 12
4 4 5 7 1 7 0 8 5
```

[Copy](#)

Sample Output 3

[Copy](#)

```
13
```

2025-06-07 (Sat)
09:46:17 -04:00

Language

Python (CPython 3.11.4) ▼

Source Code



Open File



Customize

Toggle Editor

Auto Height

1 |

* at most 512 KiB

* Your source code will be saved as *Main.extension*.

Submit

#telegram)

url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc409%2Ftasks%2Fabc409_c%3Flang%3Den&title=C%20-

[Rule \(/contests/abc409/rules\)](/contests/abc409/rules) [Glossary \(/contests/abc409/glossary\)](/contests/abc409/glossary)[Terms of service \(/tos\)](/tos) [Privacy Policy \(/privacy\)](/privacy) [Information Protection Policy \(/personal\)](/personal) [Company \(/company\)](/company)[FAQ \(/faq\)](/faq) [Contact \(/contact\)](/contact)

2025-06-07 (Sat)

Copyright Since 2012 ©AtCoder Inc. (<http://atcoder.co.jp>) All rights reserved.

09:46:17 -04:00

