

Contest Duration: 2025-04-27(Sun) 22:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250427T2100&p1=248>) - 2025-04-27(Sun) 23:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250427T2240&p1=248>) (local time) (100 minutes)

[Back to Home \(/home\)](/home)

[🏠 Top \(/contests/abc403\)](/contests/abc403)

[📋 Tasks \(/contests/abc403/tasks\)](/contests/abc403/tasks)

[❓ Clarifications \(/contests/abc403/clarifications\)](/contests/abc403/clarifications)

[📊 Results ▼](#)

[🏆 Standings \(/contests/abc403/standings\)](/contests/abc403/standings)

[🏆 Virtual Standings \(/contests/abc403/standings/virtual\)](/contests/abc403/standings/virtual)

[📖 Editorial \(/contests/abc403/editorial\)](/contests/abc403/editorial)

[💬 Discuss \(https://codeforces.com/blog/entry/142272\)](https://codeforces.com/blog/entry/142272)



D - Forbidden Difference

[Editorial \(/contests/abc403/tasks/abc403_d/editorial\)](/contests/abc403/tasks/abc403_d/editorial)



Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 425 points

Problem Statement

You are given a length- N integer sequence $A = (A_1, A_2, \dots, A_N)$ and a non-negative integer D . We wish to delete as few elements as possible from A to obtain a sequence B that satisfies the following condition:

- $|B_i - B_j| \neq D$ for all i, j ($1 \leq i < j \leq |B|$).

Find the minimum number of deletions required.

Constraints

- $1 \leq N \leq 2 \times 10^5$
- $0 \leq D \leq 10^6$
- $0 \leq A_i \leq 10^6$
- All input values are integers.

Input

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

2026-01-02 (Fri)
05:22:56 +11:00

$N \quad D$
 $A_1 \quad A_2 \quad \dots \quad A_N$

Output

Print the answer.

Sample Input 1

Copy

5 2
3 1 4 1 5

Copy

Sample Output 1

Copy

1

Copy

Deleting $A_1 = 3$ yields $B = (1, 4, 1, 5)$, which satisfies $|B_i - B_j| \neq 2$ for all $i < j$.

Sample Input 2

Copy

4 3
1 6 1 8

Copy

Sample Output 2

Copy

0

Copy

The sequence A may already satisfy the condition.

Sample Input 3

Copy

10 3
1 6 2 10 2 3 2 10 6 4

Copy

Sample Output 3

Copy

2

Copy

2026-01-02 (Fri)
05:22:56 +11:00

#telegram)

url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc403%2Ftasks%2Fabc403_d%3Flang%3Den&title=D%20-

[Rule \(/contests/abc403/rules\)](/contests/abc403/rules) [Glossary \(/contests/abc403/glossary\)](/contests/abc403/glossary)

[Terms of service \(/tos\)](/tos) [Privacy Policy \(/privacy\)](/privacy) [Information Protection Policy \(/personal\)](/personal) [Company \(/company\)](/company)

[FAQ \(/faq\)](/faq) [Contact \(/contact\)](/contact)

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