Contest Duration: 2025-04-27(Sun) 08:00 (http://www.timeanddate.com/worldclock/fixedtime.html? iso=20250427T2100&p1=248) - 2025-04-27(Sun) 09:40 (http://www.timeanddate.com/worldclock/fixedtime.html? iso=20250427T2240&p1=248) (local time) (100 minutes) Back to Home (/home)

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D - Forbidden Difference

 $Editorial \ (/contests/abc403/tasks/abc403_d/editorial)$



Time Limit: 2 sec / Memory Limit: 1024 MB

 ${\it Score:}\,425\,{\it points}$

Problem Statement

You are given a length-N integer sequence $A=(A_1,A_2,\ldots,A_N)$ 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

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

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16:58:58 -04:00

Input

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

Output

Print the answer.

Sample Input 1



Sample Output 1

Сору

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

Sample Input 2 co



Sample Output 2 Copy

Оору

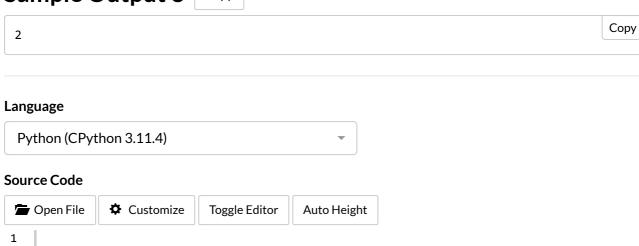
The sequence A may already satisfy the condition.

Sample Input 3 Copy

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

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Sample Output 3 Copy



^{*} Your source code will be saved as Main. extension.



#telegram)

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

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^{*} at most 512 KiB

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