

2. Nice Teams

A coach of a school chess club wants to start a mentoring program for newer players. Each player has an integer rating representing skill level. The coach would like to pair up students whose ratings differ by no less than a given minimum. What is the maximum number of pairs that can be formed?

Example

$n = 6$

$rating = [1, 2, 3, 4, 5, 6]$

$minDiff = 4$

There are $n = 6$ players. Two pairs of players have a difference of 4 or more: those with ratings (1, 5) and (2, 6).

Function Description

Complete the function *maxPairs* in the editor below. The function must return an integer that represents the maximum number of pairs that the coach can form.

max Pairs has the following parameter(s):

rating: an array of integers denoting the ratings of the players

minDiff: the minimum difference in skill levels of the players in a pair

Constraints

- $1 \leq n \leq 10^5$
- $0 \leq minDiff \leq 10^9$
- $1 \leq rating[i] \leq 10^9$

▼ Input Format For Custom Testing

The first line contains an integer, n , denoting the number of players.

Each line i of the n subsequent lines (where $1 \leq i \leq n$) contains an integer *skillLevel[i]*, the skill level of the player i .

The last line of the input contains the integer *minDiff*, the minimum difference in skill levels of the players in a pair.

▼ Sample Case 0

Sample Input For Custom Testing

```
4
1
1
1
1
1
1
```

Sample Output

```
0
```

Explanation

$n = 4$

$rating = [1, 1, 1, 1]$

$minDiff = 1$

There is no pair of players whose ratings differ by at least 1.

▼ Sample Case 1

Sample Input For Custom Testing

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

Sample Output

```
2
```

Explanation

$n = 6$

$rating = [3, 4, 5, 2, 1, 1]$

$minDiff = 3$

Pairs that satisfy the conditions:

- the players at indices (3, 4) with ratings (5, 2)

- the players at indices (2, 5) with ratings (4, 1)