1395. Count Number of Teams

Description

There are n soldiers standing in a line. Each soldier is assigned a unique rating value.

You have to form a team of 3 soldiers amongst them under the following rules:

- Choose 3 soldiers with index (i , j , k) with rating (rating[i] , rating[j] , rating[k]).
- A team is valid if: (rating[i] < rating[j] < rating[k]) or (rating[i] > rating[j] > rating[k]) where (0 <= i < j < k < n).

Return the number of teams you can form given the conditions. (soldiers can be part of multiple teams).

Example 1:

```
Input: rating = [2,5,3,4,1]
Output: 3
Explanation: We can form three teams given the conditions. (2,3,4), (5,4,1), (5,3,1).
```

Example 2:

```
Input: rating = [2,1,3]
Output: 0
Explanation: We can't form any team given the conditions.
```

Example 3:

```
Input: rating = [1,2,3,4]
Output: 4
```

Constraints:

- n == rating.length
- 3 <= n <= 1000
- 1 <= rating[i] <= 10 ⁵
- All the integers in rating are unique.