UNUSUAL MARKING

Some students are standing in a queue by themselves. A teacher decides to mark students in an unusual way based on their heights. She decides to give 5 marks to students who have a next smaller student of their next taller student, 10 marks to student who have a next taller but not a next smaller of next taller student and 15 marks to students who do not have a next taller student. Write an algorithm to find the total score of the class given the heights of the students in the order of the queue.

Note: The heights of the students are relative to each other and denoted by an integer between 1 and 10^9(both included).

Input :

an integer n representing the number of students.(1<=n<=10^5).
a list of n integers representing the heights of students in the order in which they are standing in the queue.(1<=height of student<=10^9)

Example :

Input:
6
1 4 5 2 7 1

Output:
50

1 has next greater element 4 and next smaller 2. So, 5 marks.
4 has next greater element element 5 and next smaller 2. So, 5 marks.
5 has next greater element 7 and next smaller element 1. So, 5 marks.
2 has next greater element 7 and next smaller element 1. So, 5 marks.
7 does not have next greater element. So, 15 marks.
1 does not have a next greater element. So, 15 marks.
So, total marks=50.