COCI '07 Contest 1 #5 Srednji

Consider a sequence A of integers, containing N integers between 1 and N. Each integer appears exactly once in the sequence.

A subsequence of A is a sequence obtained by removing some (possibly none) numbers from the beginning of A, and then from the end of A. Calculate how many different subsequences of A of odd length have their median equal to B. The median of a sequence is the element in the middle of the sequence after it is sorted. For example, the median of the sequence $\{5, 1, 3\}$ is 3.

Input Specification

The first line contains two integers, N $(1 \leq N \leq 100\,000)$ and B $(1 \leq B \leq N)$.

The second line contains N integers separated by spaces, the elements of sequence A.

Output Specification

Output the number of subsequences of A whose median is B.

Sample Input 1

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

Sample Output 1

```
2
```

Sample Input 2

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

Sample Output 2

```
1
```

Sample Input 3

```
7 4
5 7 2 4 3 1 6
```

Sample Output 3

```
4
```

Explanation for Sample Output 3

In the third example, the four subsequences of A with median 4 are $\{4\}$, $\{7, 2, 4\}$, $\{5, 7, 2, 4, 3\}$ and $\{5, 7, 2, 4, 3, 1, 6\}$.