Problem for Cengiz

**Time Limit:** 1.0s  **Memory Limit:** 256M

Fahri has an interesting problem for Cengiz. There is an array of $N$ elements $a_1, a_2, \ldots, a_N$. Count the number of intervals $[l, r]$ such that

- $1 \leq l \leq r \leq N$,
- $a_l + a_{l+1} + \ldots + a_{r-1} + a_r < K$.

Could you help Cengiz to solve this problem?

**Input**

The first line contains integer $N$.

The next line contains $N$ integers $a_1, a_2, \ldots, a_N$ separated with single spaces.

The following line contains integer $K$.

**Output**

Print the number of intervals.

**Constraints**

- $1 \leq N \leq 2 \cdot 10^5$
- $-10^9 \leq a_i \leq 10^9$
- $-10^9 \leq K \leq 10^9$

**Samples**

**Input(stdin)**

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

**Output(stdout)**

```
6
```

**Notes**

While solving the sample Cengiz counts six intervals:
[1, 1], [2, 2], [3, 3], [4, 4], [1, 2], [2, 3].