

Parties

2022/2023 SEASON – SECOND ROUND



In a parliament there are n parties, respectively with x_1, x_2, \dots, x_n MPs. MPs from the same party always vote together.

For a bill to be approved, it must have the support of at least d of them.

Party i is considered "influential" if there exists a (possibly empty) subset $M = \{m_1, m_2, \dots, m_k\}$ of $\{1, 2, \dots, n\}$ of other parties ($i \notin M$) such that $\sum_{j=1}^k x_{m_j} < d$, but $x_i + \sum_{j=1}^k x_{m_j} \geq d$, or in other words, the parties from M parties cannot approve the bill by themselves, but they could if they get the support of party i .

Find the number of "influential" parties.

Input

The first line of the file **parties.in** contains the numbers n and d . The second line contains n numbers - x_1, x_2, \dots, x_n

Output

Print the answer in the file **parties.out**.

Constraints

$$1 \leq n \leq 10^5$$

$$1 \leq x_1 + x_2 + \dots + x_n \leq 10^6$$

$$\frac{x_1 + x_2 + \dots + x_n}{2} < d \leq x_1 + x_2 + \dots + x_n$$

Time limit: 1.4 sec.

Memory limit: 256 MB.

Sample test

Input (parties.in)	Output (parties.out)
5 121	1
12 19 14 137 58	