Boat Rides

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Points: 100 (partial)
Time limit: 1.0s
Memory limit: 256M

Allowed languages
C

Problem Statement

There are **n** children who need to be paired up for a boat ride. Each boat can carry at most two children, and the combined weight of the children in any boat cannot exceed **x**. You are given the weight of each child. What is the minimum number of boats required to accommodate all the children?

Input Format

- Two integers **n** and **x** on the first line, representing the number of children and the maximum allowed weight per boat respectively.
- A second line containing **n** integers: $\mathbf{p_1, p_2, ..., p_n}$, where $\mathbf{p_i}$ is the weight of the **i**-th child.
- It is guarenteed that all $\mathbf{p_i}$ are lesser than or equal to **x**.

Output Format

- Print one integer: the minimum number of boats required.

Constraints

- `1 ≤ n ≤ 2 * 10^5`
- `1 ≤ x ≤ 10^9`
- `1 ≤ pᵢ ≤ x`

Example

Input

```
1 1 1 1 1 1 1 1 1 1
```

Output

```
5
```

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Clarifications

Request clarification

No clarifications have been made at this time.