



Yassinezeort | Logout

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B. Pairing for Boats

time limit per test: 10 s

memory limit per test: 1024 MB

A group of n people wants to cross a river using boats, but each boat has a weight limit of x .

Each boat can carry either one or two people, provided the combined weight of the passengers does not exceed x .

You are given the weight of each person, and your task is to determine the minimum number of boats required to transport everyone across the river.

Input

The first input line contains two integers n and x : the number of people and the maximum weight limit per boat.

The second line contains n integers w_1, w_2, \dots, w_n : the weight of each person.

 $(1 \leq n \leq 2 * 10^5, 1 \leq x \leq 10^9, 1 \leq w_i \leq x)$

Output

Output a single integer, the minimum number of boats required to transport all individuals.

Example

| | |
|---------------|-------------------------------------|
| input | <input type="button" value="Copy"/> |
| 4 10 | |
| 7 2 3 9 | |
| output | <input type="button" value="Copy"/> |
| 3 | |

CP3 Lab LAU

Private**Manager**

→ Group Contests

- Greedy Lab
- Greedy Practice I
- DP Practice Problems
- Exam 1 Sample
- Graphs Lab III
- Graphs Lab III
- Graphs Lab II
- Graphs Lab I
- Sorting Lab III
- Implementation Practice
- Sorting Lab II
- Sorting Lab I
- Sorting Lab
- AVL Trees Lab 2
- AVL Trees Lab 1
- AVL Trees Practice
- BST Lab 2
- BST Lab 1
- BST Lab

Greedy Lab

Finished**Practice**

→ Languages

The following languages are only available languages for the problems from the contest

Greedy Lab:

- GNU G++17 7.3.0
- GNU G++20 13.2 (64 bit, winlibs)
- GNU G++23 14.2 (64 bit, msys2)
- Java 21 64bit
- Java 8 32bit

**→ Virtual participation**

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest**→ Administration**

Currently, manager mode is disabled. It means that you may take part in this mashup contest as regular user.

Do you want to enable manager mode?

Enable manager mode**→ Submit?**Language: Choose file: No file chosen**Submit****→ Last submissions**

| Submission | Time | Verdict |
|---------------------------|----------------------|-----------------|
| 295764558 | Dec/09/2024 17:51 | Accepted |

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The only programming contests Web 2.0 platform

Server time: Sep/22/2025 21:22:04 (g1).

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