

2491. Divide Players Into Teams of Equal Skill

Solved ●

Medium  Topics  Companies  Hint

You are given a positive integer array `skill` of **even** length `n` where `skill[i]` denotes the skill of the `ith` player. Divide the players into `n / 2` teams of size `2` such that the total skill of each team is **equal**.

The **chemistry** of a team is equal to the **product** of the skills of the players on that team.

Return the sum of the **chemistry** of all the teams, or return `-1` if there is no way to divide the players into teams such that the total skill of each team is equal.

Example 1:

Input: `skill = [3,2,5,1,3,4]`

Output: `22`

Explanation:

Divide the players into the following teams: (1, 5), (2, 4), (3, 3), where each team has a total skill of 6.

The sum of the chemistry of all the teams is: $1 * 5 + 2 * 4 + 3 * 3 = 5 + 8 + 9 = 22$.

Example 2:

Input: `skill = [3,4]`

Output: `12`

Explanation:

The two players form a team with a total skill of 7.

The chemistry of the team is $3 * 4 = 12$.

Example 3:

Input: `skill = [1,1,2,3]`

Output: `-1`

Explanation:

There is no way to divide the players into teams such that the total skill of each team is equal.

Constraints:

- $2 \leq \text{skill.length} \leq 10^5$
- `skill.length` is even.
- $1 \leq \text{skill}[i] \leq 1000$

Seen this question in a real interview before? 1/5

Yes No

Accepted 168.8K Submissions 244.1K Acceptance Rate 69.2%

Topics



Companies



Hint 1



Hint 2



Similar Questions



Discussion (155)

