# 2491. Divide Players Into Teams of Equal Skill

# Description

You are given a positive integer array skill of even length n where skill[i] denotes the skill of the i th 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 <= skill.length <= 10 <sup>5</sup>
- skill.length is even.
- 1 <= skill[i] <= 1000