Problem ID: bongobongochess

You travel to the distant year 3019. All animals have learned to talk in human languages and live together in harmony. One of the most popular pastimes in Bongo Bongo Jungle, where you are staying over the weekend, is to play *Friendship Chess:* a chess variant played in teams by passing the board around.

The players are all sitting in a circle, with each player sitting between two players of the opposing team. After every move, the chess board is kindly handed to the next player in the circle, so that turns alternate between the two teams.

The odd number of animals you want to play with are already arranged in a circle, waiting for you to join. When you pick a place to sit, teams will be determined as described above, so you have some control over who will be in your team.

You'd really like to win, so you decide to check all the animals' social media to look up their *Animelo Rating*, a number that indicates how good someone is at chess. While you don't know the exact details of how this rating system works, you strongly believe that it's probably best to sit such that the sum of your teammates' Animelo Ratings is as high as possible. What's the highest that sum can be?

Input

The input consists of:

- One line with an odd integer n ($3 \leq n \leq 456\,789$), the number of animals playing.
- One line with n integers $s_1, \ldots, s_n$ ($1 \leq s_i \leq 1\,000$ for each i), giving the Animelo Ratings of the animals in the order they're sitting in.

Output

Output the maximum possible sum of your teammates' Animelo Ratings.

Sample Input 1	**Sample Output 1**
5 4 3 2 5 1	9

Sample Input 2	**Sample Output 2**
3 1 1000 1	1000