A Game

Time limit: 1.0s **Memory limit:** 16M

There are a bunch of coins on a table, laid out in a straight line.
Each coin has a (positive) value from 1 to $1\,000$. Now, you're going to play a game with a friend.

At every turn, you must remove a coin from one end of the line.
Turns alternate, so your friend goes immediately after you're done.
The game ends when there are no coins remaining.

An example game:
The coins start like this:
$4, 4, 9, 4$
You always go first, so you take the 4 from the left side:
$4, 9, 4$
Your friend takes any of the 4s (it doesn't matter)
$9, 4$
Now you can take the 9, and your friend takes the remaining 4.

Your score, in this case, is $4 + 9 = 13$.
(In this case, you can always beat your friend.)
Find the maximum possible score you can achieve.

Input Specification

$N \leq 1\,000$, the number of coins.
N lines, each with the value of a coin.

Output Specification

Your maximum possible score, provided that you go first and your friend plays perfectly.