Number Rush

Time Limit : 1s

Recently, Game Company Kroski released a two player versus game.
We can challenge anyone in the arena.
The game is turn-base game, given a row of numbers.
For each turn, players can take a number or two consecutive numbers from either head or tail.
The player with the highest sum, will win the game.
Because the game just released in the past few week, the marketing just makes a tournament.
Who can get top 5 of global score within this month, can get a game console.
You are entering the arena for practice, but somehow you want to know.
What is your maximum score, if you get the first turn.
Assume that both players play optimally.

Input

First line consists of one integer N ($1 \leq N \leq 1000$). Denotes numbers count. The next N integers, ($0 \leq |X_i| \leq 10^6$).

Output

Maximum score, if both players play optimally.

Sample Input

```
5
-1 -2 3 -4 -5
```

Sample Output

```
-5
```