Problem D
Delivery Forces



Gry finally becomes the Executive Courier Officer in "Universe Express". He has n subordinate couriers with some delivery strength f_i. The delivery strength of a team of three people is the median of their strength, i.e., the middle element after the sorting. Please help Gry to split the couriers into k teams of three people in order to maximize the total delivery strength of "Universe Express". The total strength is the sum of the strength of these k teams.

Input

- One line containing the number of couriers in the company, n ($1 \leq n \leq 10^6$), where n is a multiple of 3.
- One line containing the strengths of the n couriers $f_1 \ldots f_n$ ($1 \leq f \leq 10^6$).

Output

The sole line of the output should contain the maximal strength of "Universe Express".

Sample Input 1	Sample Output 1
3 1 2 3	2

Sample Input 2	Sample Output 2
6 5 6 2 3 1 4	8

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