Problem M
ICPC Provincial

The University of INC (UOI) is participating in an ICPC Provincial Contest, a qualifier contest for the ICPC Regional Contest. UOI has $3N$ students (numbered from 1 to $3N$) who are eager to participate in the contest. There will be N teams, each consisting of exactly 3 students. Each student can only be assigned to only one team.

As the coach of UOI, you know that student i has a skill rating of A_i. You define the strength of a team as the median of the skill ratings of its members.

In order to increase the chance for all UOI teams to qualify for the ICPC Regional Contest, you want to arrange the teams so that the strength of the weakest team is maximized. Determine the maximum strength of the weakest team.

Input

The first line consists of an integer N ($1 \leq N \leq 100\,000$).

The second line consists of $3N$ integers A_i ($0 \leq A_i \leq 4000$).

Output

Output a single integer representing the maximum strength of the weakest team.

Sample Input #1

```
2
1500 1700 1800 2300 2500 2600
```

Sample Output #1

```
1800
```

Explanation for the sample input/output #1

Team 1 consists of students 1, 3, and 5, while team 2 consists of students 2, 4, and 6. The strength of team 1 and 2 are 1800 and 2300, respectively. Other arrangements exist, but none allow the weakest team to have a strength higher than 1800.

Sample Input #2

```
1
2800 2100 3000
```

Sample Output #2

```
2800
```

Explanation for the sample input/output #2

There is only one team with the strength of 2800.

Sample Input #3

```
3
4000 0 4000 0 4000 0 4000 0 4000
```

Sample Output #3

```
0
```