Problem I
ICPC Team Selection

Problem ID: icpcteamselectic
CPU Time limit: 1 second
Memory limit: 1024 MB

Source: The 2016 ACM - ICPC Nha Trang Regional Contest

The coach of Nha Trang University, Mr. Van, has just organized a contest to form its ICPC teams. There were students participating in the contest. The i^{th} student scored P_i in the contest.

The coach wants to form N different teams (each team has 3 students) to take part in the regional contest based on the results from this contest. In his experience, the performance of a team is usually equal to the median of team members' individual results (i.e. the result of the second-best student).

The coach wants to maximize S – the sum of his N teams' performance. Your task is to calculate S.

Input

The input consists of several datasets. The first line of the input contains the number of datasets which is a positive integer and is not greater than 20. The following lines describe the datasets.

Each dataset is described by the following lines:

- The first line contains a positive integer N $(N \leq 100)$.
- The second line contains $3N$ positive integers $P_1, P_2, \ldots, P_{3N}$ $(P_i \leq 100)$.

Output

For each dataset, output the value S.

Explanation for the Sample Dataset

One way to form two teams is:

- Team 1: student 1, student 2, student 3;
- Team 2: student 4, student 5, student 6.

Sample Input 1

```
1
2
8 8 6 9 10 9
```

Sample Output 1

```
17
```