

Connecting three towns

Given three towns find the point for which the summary distance to all towns is as small as possible.

The shorter all streets together, the shorter your source code and the faster your code the better will be your score. For the street length you can get at most 10000000 points, for each of the other parts 5000. Thus the best score is 10010000.

Input

In the first line the number T ($T < 100$) of test cases. Then T lines with the space separated coordinates (integer $0 \leq x, y \leq 100$) of the three towns.

Output

For each test case the coordinates of the above specified point.

Example

Input:

```
2
2 2 1 1 2 1
1 0 0 2 1
```

Output:

```
1.78867513459 1.21132486541
1 0
```