Find the Point

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Consider two points, $p = (p_x, p_y)$ and $q = (q_x, q_y)$. We consider the inversion or point reflection, $r = (r_x, r_y)$, of point p across point q to be a $180°$ rotation of point p around q.

Given n sets of points p and q, find r for each pair of points and print two space-separated integers denoting the respective values of r_x and r_y on a new line.

Input Format

The first line contains an integer, n, denoting the number of sets of points.
Each of the n subsequent lines contains four space-separated integers describing the respective values of p_x, p_y, q_x, and q_y defining points $p = (p_x, p_y)$ and $q = (q_x, q_y)$.

Constraints

- $1 \leq n \leq 15$
- $-100 \leq p_x, p_y, q_x, q_y \leq 100$

Output Format

For each pair of points p and q, print the corresponding respective values of r_x and r_y as two space-separated integers on a new line.
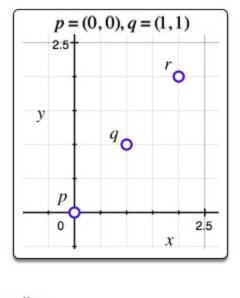
Sample Input

```
2
0 0 1 1
1 1 2 2
```
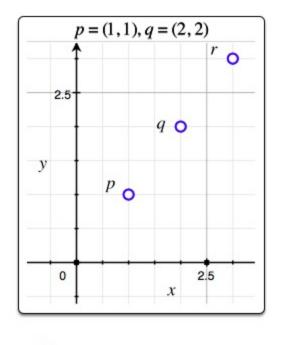
Sample Output

```
2 2
3 3
```

Explanation

The graphs below depict points p, q, and r for the $n = 2$ points given as *Sample Input*:

1.

Thus, we print r_x and r_y as `2 2` on a new line.

2.

Thus, we print r_x and r_y as `3 3` on a new line.

Current Buffer (saved locally, editable) ⑂ ⏱

BASH ⌄

```
1
```

⬆ Upload Code as File   ☐ Test against custom input

Run Code   Submit Code

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