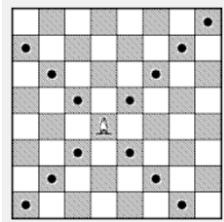# B: Chess

In Konoha Academy, Shikamaru has set up a new challenge for all the ninja students. He sets up a chess board with two bishops at different locations. The task is to find all the squares where they could intercept each other in a single move. (A bishop moves along two diagonals in any direction until it reaches the edge of the board, as shown in the figure to the left.

Knowing Shikamaru's prowess at mind games, the ninja students have come to you for help!

Input
Input begins with an integer T indicating the number of test cases. For each test case there would be a line with four integers x1, y1, x2, y2 representing the location of the first and second bishop. (Location 0, 0 is at the lower left corner of the board.) (Constraints: $0 \leq x1, y1, x2, y2 < 500$.) The Initial location of the bishops will always be different, and they will not be located on the same diagonal. Assume that the bishops will always intersect at at least one square.

Output
For each test case, output a line containing either two or four integers, which represent the coordinates of the locations where the bishops intersect (at either one or two locations). The coordinates with the smaller x value should appear first. If the x-values are same, then display the coordinates having the smaller y-value first. Only output intersections having positive values for both x and y. *Note: intersections may have values greater than 500.*

Sample Input
```
2
0 0 2 0
2 2 2 4
```

Sample Output
```
1 1
1 3 3 3
```