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Contest Code: [LTIME105D](#) **Problem Code:** [CHESSDIST](#)


The Chessboard Distance for any two points (X_1, Y_1) and (X_2, Y_2) on a Cartesian plane is defined as $\max(|X_1 - X_2|, |Y_1 - Y_2|)$.

You are given two points (X_1, Y_1) and (X_2, Y_2) . Output their Chessboard Distance.

Note that, $|P|$ denotes the absolute value of integer P . For example, $|-4| = 4$ and $|7| = 7$.

Input Format

- First line will contain T , the number of test cases. Then the test cases follow.
- Each test case consists of a single line of input containing 4 space separated integers - X_1, Y_1, X_2, Y_2 - as defined in the problem statement.

Output Format

For each test case, output in a single line the chessboard distance between (X_1, Y_1) and (X_2, Y_2)

Constraints

- $1 \leq T \leq 1000$
- $1 \leq X_1, Y_1, X_2, Y_2 \leq 10^5$

Subtasks

Subtask #1 (100 points): original constraints

Sample Input 1

```
3
2 4 5 1
5 5 5 3
1 4 3 3
```

Sample Output 1

```
3
2
2
```

Explanation

- In the first case, the distance between $(2, 4)$ and $(5, 1)$ is $\max(|2 - 5|, |4 - 1|) = \max(|-3|, |3|) = 3$.
- In the second case, the distance between $(5, 5)$ and $(5, 3)$ is $\max(|5 - 5|, |5 - 3|) = \max(|0|, |2|) = 2$.
- In the third case, the distance between $(1, 4)$ and $(3, 3)$ is $\max(|1 - 3|, |4 - 3|) = \max(|-2|, |1|) = 2$.

JAVA



Code gets autosaved every second



```
1  /* package codechef; // don't place package name! */
2
3  import java.util.*;
4  import java.lang.*;
5  import java.io.*;
6
7  /* Name of the class has to be "Main" only if the class is public. */
```

```
8  class Codechef
9  {
10     public static void main (String[] args) throws java.lang.Exception
11     {
12         Scanner sc = new Scanner(System.in);
13         int n = sc.nextInt();
14         for(int i = 0; i < n; i++){
15             int x1 = sc.nextInt();
16             int x2 = sc.nextInt();
17             int y1 = sc.nextInt();
18             int y2 = sc.nextInt();
19             int ans1 = Math.max(Math.abs(x1 - y1), Math.abs(x2 - y2));
20             System.out.println(ans1);
21         }
22     }
23 }
24
```

0:0



Open File

Run

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Custom Input

```
3
2 4 5 1
5 5 5 3
1 4 3 3|
```

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