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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

- ullet 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

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

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 🖆

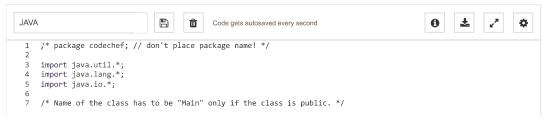
3

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 $\max(|1-3|,|4-3|)=\max(|-2|,|1|)=2 \ .$



```
class Codechef
      10
11
                         \verb"public static void main (String[] args) throws java.lang. Exception
                                  Scanner sc = new Scanner(System.in);
                                 Scanner sc = new Scanner(System.in);
int n = sc.nextInt();
for(int i = 0; i < n; i++){
   int x1 = sc.nextInt();
   int x2 = sc.nextInt();
   int y1 = sc.nextInt();
   int y2 = sc.nextInt();
   int y2 = sc.nextInt();
   int ans1 = Math.max(Math.abs(x1 - y1), Math.abs(x2 - y2));
   System.out.println(ans1);
}</pre>
      13
14
      15
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                }
   0:0
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       Open File
                                                                                                                                                                                                              Run
                                                                                                                                                                                                                                                  Submit
Custom Input
3
2 4 5 1
5 5 5 3
1 4 3 3
```

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