16/11/2017 HackerRank



# A Chessboard Game



Problem Submissions Leaderboard Discussions Editorial
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Two players are playing a game on a  $15 \times 15$  chessboard. The rules of the game are as follows:

- The game starts with a single coin located at some x, y coordinate. The coordinate of the upper left cell is (1, 1), and the coordinate of the lower right cell is (15, 15).
- In each move, a player must move the coin from cell (x, y) to one of the following locations:

1. 
$$(x-2, y+1)$$

2. 
$$(x-2, y-1)$$

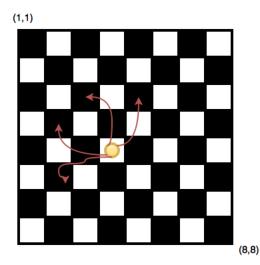
3. 
$$(x+1, y-2)$$

4. 
$$(x-1, y-2)$$

Note: The coin must remain inside the confines of the board.

• The players move in alternating turns. The first player who is unable to make a move loses the game.

The figure below shows all four possible moves:



**Note:** While the figure shows a  $8 \times 8$  board, this game is played on a  $15 \times 15$  board.

Given the initial coordinate of the coin, determine which player will win the game. Assume both players always move optimally and the first player always moves first.

#### **Input Format**

The first line contains an integer, T, denoting the number of test cases.

Each of the T subsequent lines contains 2 space-separated integers describing the respective x and y values of the coin's coordinate.

#### **Constraints**

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- $1 \le T \le 15 \times 15$
- $1 \leq x_i, y_i \leq 15$

## **Output Format**

On a new line for each test case, print First if the first player is the winner; otherwise, print Second.

## **Sample Input**

- 3
- 5 2
- 5 3 8 8

## **Sample Output**

Second First First

f in Submissions:<u>3122</u>
Max Score:15
Difficulty: Easy
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Current Buffer (saved locally, editable) & 🗘
                                                                                         Java 7
                                                                                                                           Ö
1 ▼ import java.io.*;
2 import java.util.*;
3 import java.text.*;
4
   import java.math.*;
5
   import java.util.regex.*;
6
7 ▼ public class Solution {
8
9 ▼
        public static void main(String[] args) {
10 ▼
            /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11
12 }
                                                                                                                  Line: 1 Col: 1
```

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Test against custom input

**1** Upload Code as File