



Count Solutions

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Problem

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Editorial

Eric has four integers a , b , c , and d .

Instantly, he wondered how many pairs of integers, (x, y) , satisfy the following equation:

$$x^2 + y^2 = (x \times a) + (y \times b)$$

where $1 \leq x \leq c$ and $1 \leq y \leq d$.

Find and print the number of pairs that satisfy the above equation.

Input Format

The first line contains an integer q , the number of queries.
 q lines follow, each containing four integers, a , b , c , and d , in that order.

Constraints

- $1 \leq q \leq 10$
- $1 \leq a, b, c, d \leq 10^5$

Output Format

For each test case, print one line, the number of pairs (x, y) that are valid solutions to Eric's equation.

Sample Input 0

```
1
1 1 1 1
```

Sample Output 0

```
1
```

Explanation 0

The solution to $x^2 + y^2 = x + y$, where $1 \leq x \leq 1$ and $1 \leq y \leq 1$ is $x = 1, y = 1$.

f t in

Submissions: 1886

Max Score: 40

Difficulty: Medium

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C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static int countSolutions(int a, int b, int c, int d){
8         // Complete this function
```

```
9      }
10
11     static void Main(String[] args) {
12         int q = Convert.ToInt32(Console.ReadLine());
13         for(int a0 = 0; a0 < q; a0++){
14             string[] tokens_a = Console.ReadLine().Split(' ');
15             int a = Convert.ToInt32(tokens_a[0]);
16             int b = Convert.ToInt32(tokens_a[1]);
17             int c = Convert.ToInt32(tokens_a[2]);
18             int d = Convert.ToInt32(tokens_a[3]);
19             int result = countSolutions(a, b, c, d);
20             Console.WriteLine(result);
21         }
22     }
23 }
24
```

Line: 1 Col: 1

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