

Jack is building a new house. He would like to tile his kitchen with congruent pieces formed by removing a 1×1 square from a 2×2 square.

He already knows that his kitchen will have length between $L1$ and $L2$ inclusive, and its width will be between $W1$ and $W2$ inclusive. Jack insists his kitchen to be a perfect rectangle. Of course, the floor must be tiled completely using these pieces (no overlaps, no spaces).

Determine the number of dimensions for Jack's Kitchen.



Input

You will be given K , the number of test cases. The next K lines will contain four positive integers separated by spaces: $L1 L2 W1 W2$, all of which are less than 1000.

Output

For each test case you are to output a single line containing the number of different dimensions for Jack's Kitchen. A 2×1 kitchen is different from a 1×2 kitchen.

Sample Input

```
2
2 2 2 3
2 3 3 4
```

Sample Output

```
1
2
```