Total Odd V2

There are two integers L and R, you'll have to count how many odd numbers are there withing the range from L to R inclusive.

All of you know what is a odd number. An integer that is not divisible by 2 is called an odd number.

Input

The first line will be a single integer **T** which denotes the testcases. Next T lines will contain **L** and **R**.

Constraints

1<=**T**<=10

1<=**L<=R**<=1000000000000000000

Output

For each case, print the count of odd numbers from L to R inclusive.

Example

Input:

```
3
1 1
1 3
2 3
```

Output:

```
1
2
1
```

[Original Setter of this problem is Dhruba Mitra, RUET]