Absecutive

Input file: standard input
Output file: standard output
Time limit: 0.25 seconds
Memory limit: 4 megabytes

Su is preparing a lesson on integers for her students. She will give each student a consecutive integer starting from l and ending at r. Then she will ask students to form pairs* according to the following rule:

• Two students can form a pair only if the magnitudes of their numbers differ by one.

In anticipation of the class, Su wants to know how many (possibly non-disjoint) pairs could be formed.

Input

The first line of the input contains a single integer, t $(1 \le t \le 10^3)$ — the number of test cases.

The only line of each test case contains two integers, l and r ($-10^9 \le l \le r \le 10^9$) — the lower and upper bounds of the interval, respectively.

Output

For each test case, output a single integer — the number of pairs of integers within the given interval, such that their magnitudes differ by one.

Example

standard input	standard output
5	0
1 1	1
0 1	2
-1 1	4
-1 2	6
-2 2	

Note

In the first test case, no valid pair can be formed.

In the second test case, a single pair can be formed: (0,1). Note that the pair (1,0) is equivalent.

In the third test case, two pairs can be formed, namely: (-1,0) and (0,1).

^{*}In this problem, a pair is considered a two-element set, such that the order of elements is unimportant.