Interesting Ranges

Problem

A positive integer is a *palindrome* if its decimal representation (without leading zeros) is a palindromic string (a string that reads the same forwards and backwards). For example, the numbers 5, 77, 363, 4884, 11111, 12121 and 349943 are palindromes.

A range of integers is *interesting* if it contains an even number of palindromes. The range [L, R], with L ≤ R, is defined as the sequence of integers from L to R (inclusive): (L, L+1, L+2, ..., R-1, R). L and R are the range's first and last numbers.

The range $[L_1, R_1]$ is a *subrange* of [L,R] if $L \le L_1 \le R_1 \le R$. Your job is to determine how many interesting subranges of [L,R] there are.

Input

The first line of input gives the number of test cases, **T**. **T** test cases follow. Each test case is a single line containing two positive integers, **L** and **R** (in that order), separated by a space.

Output

For each test case, output one line. That line should contain "Case #x: y", where x is the case number starting with 1, and y is the number of interesting subranges of [L,R], modulo 1000000007.

Limits

Time limit: 45 seconds per test set.
Memory limit: 1 GB.

$1 \le T \le 120$

Small dataset

$1 \le L \le R \le 10^{13}$

Large dataset

$1 \le L \le R \le 10^{100}$

Sample

Sample Input	Sample Output
3 1 2 1 7 12 110	Case #1: 1 Case #2: 12 Case #3: 2466