Digit Sum

For a pair of integers a and b, the digit sum of the interval [a,b] is defined as the sum of all digits occurring in all numbers between (and including) a and b. For example, the digit sum of [28, 31] can be calculated as:

$$2+8 \ + \ 2+9 \ + \ 3+0 \ + \ 3+1 = 28$$

Given the numbers a and b, calculate the digit sum of [a,b].

Input

On the first line one positive number: the number of test cases, at most 100.

After that per test case:

- one line with two space-separated integers, a and b (0 <= a <= b <= 10^15).

Output

Per test case:

- one line with an integer: the digit sum of [a,b];

Example

Input:
3
0 10
28 31
1234 56789

Output:
46
28
1128600