

# Lexicographic position

Let us consider the set of integer numbers between 1 and N inclusive. Order them lexicographically (i. e. like in the vocabulary), for example, for  $N = 11$  the order would be: 1, 10, 11, 2, 3, 4, 5, 6, 7, 8, 9.

Denote the position of the number K in this ordering as  $Q_{N,K}$ . For example,  $Q_{11,2} = 4$ .

Given N and K, compute  $Q_{N,K}$ .

## Input

The first line contains a number T, which is the number of test cases. T lines follow, each contains 2 integers N and K separated by a single space.

## Output

For each test case, print  $Q_{N,K}$  on a single line.

## Constraint

$$1 \leq T \leq 100$$

$$1 \leq K \leq N \leq 10^{100}$$

## Example

**Input:**

```
7
1 1
11 2
215 211
215 215
215 26
215 99
1000000000 999999999
```

**Output:**

```
1
4
126
130
135
215
1000000000
```