

Problem H – Number 9 is not cute

VKU ICPC team members play a math game together as follows: With a given pair of positive integers m and n , let's count how many integers from m to n do not contain the digit 9 as well as are not divisible by 9.

Input

- The first line contains a positive integer T which is the number of pairs of integers m and n .
- The next T lines, each line contains 2 positive integers m and n satisfying the condition $1 \leq m \leq n \leq 10^{18}$

Output

- Display the number of integers-from- m -to- n that do not contain the digit 9 as well as are not divisible by 9 for each pair of numbers in each row.

Example

Input

```
2
10 20
1 36
```

Output

```
9
30
```