

1903 - I2P(II)Yang_Winter_Vacation_Homework_2020

[Scoreboard \(/contest/scoreboard/1903/\)](/contest/scoreboard/1903/)

[\(/contest/edit/1903/\)](/contest/edit/1903/)

Time

2020/01/20 00:00:00

32days, 08:31:08

2020/02/22 00:00:00

Clarification

Problem

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Description

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Overview

Problem ▾

12613 - Yet Another Meme Problem

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[\(/problem/12613/edit/\)](/problem/12613/edit/)

Description

Problem slightly modified from codeforces educational round 80
(<https://codeforces.com/contest/1288/problem/B>)

$$(6 \times 9) + 6 + 9 = 69$$



You are given two integers **A** and **B**, calculate the number of pairs **(a,b)** such that $1 \leq a \leq A$, $1 \leq b \leq B$, and the equation $a \cdot b + a + b = \text{conc}(a,b)$ is true.

conc(a,b) is the concatenation of **a** and **b** (for example, **conc(12,23)=1223**, **conc(100,11)=10011**). **a** and **b** should not contain leading zeroes.

Hints

1. For the first test case in sample input, there is only one suitable pair : **a=1, b=9** ($1+9+1 \cdot 9=19$).
2. Since the number is large in this problem, it is suggested to use `long long int`.

Input

The first line contains **t** ($1 \leq t \leq 100$) — the number of test cases.

Each test case contains two integers **A** and **B** ($1 \leq A, b \leq 10^9$).

Output

Print one integer — the number of pairs **(a,b)** such that $1 \leq a \leq A$, $1 \leq b \leq B$, and the equation $a \cdot b + a + b = \text{conc}(a,b)$ is true.

Sample Input

Download (data:text/plain;charset=utf-8,3%0D%0A1%2011%0D%0A4%202%0D%0A191%2031415926)

```
3
1 11
4 2
191 31415926
```

Sample Output

Download (data:text/plain;charset=utf-8,1%0D%0A0%0D%0A1337)

1
0
1337

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