Task: KOM
Complete numbers

We call a positive integer *complete* if the number of the digits in its decimal representation equals the number of its divisors. For example, the number 13 is complete, because it has two digits and two divisors (1 and 13). The number 1006 is also complete, as it has four digits and four divisors (1, 2, 503, 1006). Your task is to determine how many complete integers there are in each of given t intervals.

Input

In the first line of the standard input, there is a single integer t ($1 \le t \le 1000$), specifying the number of intervals to consider. The t lines that follow provide successive intervals: Each line contains two integers a and b ($1 \le a \le b$), separated by a single space, which stand for the interval $[a, b]$.

Output

Exactly t lines should be printed to the standard output, each with a single integer: the number of complete integers in successive input intervals.

Example

For the input data:

```
2
9 11
999 1010
```

the correct result is:

```
1
3
```

Explanation for the example: The only complete integer in the fist interval is 11, whereas in the second one there are three such integers: 1003, 1006, and 1007.

Sample grading tests:

    1ocen: $t = 10$, $a = 1$, $b \in \{10, 20, 30, 40, 50, 60, 70, 80, 90, 100\}$;

    2ocen: $t = 1$, $a = 960$, $b = 1160$, the result is 44;

    3ocen: $t = 1$, $a = 4\,825\,000$, $b = 4\,827\,000$, the result is 1.

Grading

The set of tests consists of the following subsets. Within each subset, there may be several unit tests. Below, $d(x)$ denotes the number of digits of x.

Subset	Property	Score
1	$b \le 10^3$	16
2	$b \le 10^6$	23
3	$b \le 10^7$ and for all unit tests $d(a) = d(b)$ and $d(a)$ is odd	19
4	$b \le 10^7$	16
5	$t \le 5$, $b - a \le 5\,000\,000$ and $b \le 10^9$	12
6	$b \le 10^9$	14