

Another Lucky Numbers

[English](#)

[Vietnamese](#)

John has recently arrived in Bucharest for the South Eastern European Regional Contest. John is famous for his theory of lucky numbers. That's why all the contestants and spectators are very happy. According to that theory 4 and 7 are lucky digits, and all the other digits are not lucky. A lucky number is a number that contains only lucky digits in decimal notation. A very lucky number is a number that can be expressed as a product of several lucky numbers. A lucky number by itself is considered to be very lucky. For example, numbers 47, 49, 112 are very lucky.

Your task is to calculate the number of very lucky numbers that are not less than A and not greater than B. Of course, numbers A and B are given by John.

Input

The first line of the input contains a single integer T – a number of test cases. Each of the next T lines contains two integers separated by a single space – A and B.

Output

Output must contain T lines – answers for the test cases.

Constraints:

$$1 \leq T \leq 7777,$$

$$1 \leq A \leq B \leq 1000000000000 (10^{12}).$$

Sample

Input :

```
4
1 2
88 99
112 112
1 100
```

Output:

```
0
0
1
10
```

Hint: Very lucky numbers for the last case are 4, 7, 16, 28, 44, 47, 49, 64, 74 and 77.