



# Lucky Numbers



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A number is called lucky if the sum of its digits, as well as the sum of the squares of its digits is a prime number. How many numbers between A and B(both inclusive) are lucky?

Lucky numbers are not to be confused with [Lucky Numbers](#)

## Input Format

The first line contains the number of test cases T. Each of the next T lines contains two integers, A and B.

## Constraints

- $1 \leq T \leq 10^4$
- $1 \leq A \leq B \leq 10^{18}$

## Output Format

Output T lines. Each line contains the required answer for the corresponding test case.

## Sample Input

```
2
1 20
120 130
```

## Sample Output

```
4
1
```

## Explanation

For the first case, the lucky numbers are 11, 12, 14, 16.

For the second case, the only lucky number is 120.

Submissions: [3881](#)

Max Score: 100

Difficulty: Expert

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Java 7



```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8     public static void main(String args[] ) throws Exception {
9         /* Enter your code here. Read input from STDIN. Print output to STDOUT */
10    }
11 }
12
```

Line: 1 Col: 1

[Upload Code as File](#)☐

Test against custom input

Run Code

Submit Code

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