

# G-One Numbers

The War of Evil vs Good continues and Ra-One and G-One continue to be on respective sides.

After saving all the cities with [Ra-One Numbers](#) G-One realised that some cities whose population is a "G-One Number" can be easy target for Ra-One.

A G-One number is a number sum of whose digits is a prime number

For eg. 12 .. sum = 1+2 =3 ... 3 is a prime number.

G-One wants to find out all the populations which can be g-One numbers....

Can You help Him.?

You will be given the range of population and you have to tell him how many in this range are G-One Numbers.

## Input

first line has number 'c' indicating the number of ranges.

'c' lines follow and contain two numbers ..... 'f' and 't' inclusive.

## Output

Print a single line per case giving the number of populations which are G-One numbers.

## Example

**Input:**

```
3
10 19
1 9
20 29
```

**Output:**

```
4
4
5
```

**Note:** c will be less than 100

t and f will be less than  $10^8$  inclusive