

Summing up Last digits

Let $F(x)$ is a function which returns the last digit of the first prime number with 'x' digit. The first few values of $F(x)$ is:

$$F(1) = 2$$

$$F(2) = 1$$

$$F(3) = 1$$

$$F(4) = 9$$

$$F(5) = 7$$

The value of $F(x)$ for $1 \leq x \leq 25$ is $\{2,1,1,9,7,3,3,9,7,7,9,3,9,7,1,7,1,3,3,1,9,7,9,7,7\}$.

In this task you have to compute the sum up $F(x)$'s between two given a and b (including)

Constraints:

$$1 \leq T \leq 1000$$

$$1 \leq a \leq b \leq 1000$$

Input

The first line of the input is an integer T(say),then T test cases follows.

Output

Output the answer one in each line.

Example

Input:

```
3
647 997
736 823
632 928
```

Output:

```
1741
410
1487
```

Constraints:

$$1 \leq T \leq 1000$$

$$1 \leq a \leq b \leq 1000$$

Score

Score is the length of your code.