G. D-Function

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Let $D(n)$ represent the sum of digits of n. For how many integers n where $10^l \leq n < 10^r$ satisfy $D(k \cdot n) = k \cdot D(n)$? Output the answer modulo $10^9 + 7$.

Input

The first line contains an integer t ($1 \leq t \leq 10^4$) – the number of test cases.

Each test case contains three integers l, r, and k ($0 \leq l < r \leq 10^9$, $1 \leq k \leq 10^9$).

Output

For each test case, output an integer, the answer, modulo $10^9 + 7$.

Example

input Copy

```
6
0 1 4
0 2 7
1 2 1
1 2 3
582 74663 3
0 3 1
```

output Copy

```
2
3
90
12
974995667
999
```

Note

For the first test case, the only values of n that satisfy the condition are 1 and 2.

For the second test case, the only values of n that satisfy the condition are 1, 10, and 11.

For the third test case, all values of n between 10 inclusive and 100 exclusive satisfy the condition.