S - Digit Sum

Time Limit: 2 sec / Memory Limit: 1024 MB

Score : 100 points

Problem Statement

Find the number of integers between 1 and K (inclusive) satisfying the following condition, modulo $10^9 + 7$:

- The sum of the digits in base ten is a multiple of D.

Constraints

- All values in input are integers.
- $1 \leq \mathrm{K} < 10^{10000}$
- $1 \leq \mathrm{D} \leq 100$

Input

Input is given from Standard Input in the following format:

```
K
D
```

Output

Print the number of integers satisfying the condition, modulo $10^9 + 7$.

Sample Input 1 Copy

```
30
4
```

Sample Output 1 Copy

```
6
```

Those six integers are: $4, 8, 13, 17, 22$ and 26.

Sample Input 2 Copy

```
1000000009
1
```

Copy

Sample Output 2 Copy

```
2
```

Copy

Be sure to print the number modulo $10^9 + 7$.

Sample Input 3 Copy

```
98765432109876543210
58
```

Copy

Sample Output 3 Copy

```
635270834
```

Copy