Number of integers

Given two large integers, L and R, find the number of integers greater than L and less than or equal to R exactly K non-zero digits.

For example, consider the two integers to be, $L = 2$ and $R = 15$ and $K = 1$, the integers [3, 4, 5, 6, 7, 8, 9, 10] contain exactly 1 non-zero digit.

As the answer can be rather large, print it modulo $10^9 + 7$.

Input Format

The input contains three lines, each containing a single integer denoting L, R and K respectively.

Constraints

- $1 \leq L \leq R \leq 10^{100}$
- $1 \leq K \leq 100$

Output Format

Print a single integer, denoting the number of integers.

Sample Input 0

```
1
100
1
```

Sample Output 0

```
18
```

Explanation 0

The integers - [2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100] have at most 1 non-zero digit.

Sample Input 1

```
10
55
2
```

Sample Output 1

```
41
```

Explanation 1