CF1073E. Segment Sum

time limit per test 1 second
memory limit per test 256 megabytes
input standard input
output standard output

You are given two integers l and r ($l \le r$ l≤r). Your task is to calculate the sum of numbers from l to r (including l and r) such that each number contains **at most** k different digits, and print this sum modulo 998244353.

For example, if $k = 1$ k=1 then you have to calculate all numbers from l to r such that each number is formed using only one digit. For $l = 10, r = 50$ l=10,r=50 the answer is $11 + 22 + 33 + 44 = 110$ 11+22+33+44=110.

Input

The only line of the input contains three integers l, r and k ($1 \le l \le r < 10^{18}, 1 \le k \le 10$ 1≤l≤r<1018,1≤k≤10) — the borders of the segment and the maximum number of different digits.

Output

Print one integer — the sum of numbers from l to r such that each number contains at most k different digits, modulo 998244353.

Examples

input	Copy
10 50 2	

output	Copy
1230	

input	Copy
1 2345 10	

output	Copy
2750685	

input	Copy
101 154 2	

output	Copy
2189	

Note

For the first example the answer is just the sum of numbers from l to r which equals to $\frac{50 \cdot 51}{2} - \frac{9 \cdot 10}{2} = 1230$ 50·512−9·102=1230. This example also explained in the problem statement but for $k = 1$ k=1.

For the second example the answer is just the sum of numbers from l to r which equals to $\frac{2345 \cdot 2346}{2} = 2750685$ 2345·23462=2750685.

For the third example the answer is