

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

### Input

The only line of the input contains three integers  $l, r$  and  $k$  ( $1 \leq l \leq r < 10^{18}, 1 \leq k \leq 10$ ) — 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  $\frac{50 \cdot 51}{2} - \frac{9 \cdot 10}{2} = 1230$ . This example also explained in the problem statement but for  $k = 1$ .

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

For the third example the answer is

$$101 + 110 + 111 + 112 + 113 + 114 + 115 + 116 + 117 + 118 + 119 + 121 + 122 + 131 + 133 + 141 + 144 + 151 = 2189$$

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