

# Lucky Number Eight



Given an  $n$ -digit positive integer, count and print the number of subsequences formed by concatenating the given number's digits that are divisible by 8. As the result can be large, print the result modulo  $10^9 + 7$ .

## Input Format

The first line contains an integer denoting  $n$ .

The second line contains a string describing an  $n$ -digit integer.

## Constraints

- $1 \leq n \leq 2 \times 10^5$

## Output Format

Print a single integer denoting the count of subsequences of the given number that are divisible by 8, modulo  $10^9 + 7$ .

## Sample Input 0

```
3
968
```

## Sample Output 0

```
3
```

## Explanation 0

The numbers obtained from subsequences of 968 are 9, 6, 8, 96, 68, 98 and 968. Three of these numbers (i.e., 968, 96, and 8) are divisible by 8, so we print the value of  $3 \bmod (10^9 + 7) = 3$  as our answer.