Problem F: Frequent patterns

Introduction

The SETI (Search for Extraterrestrial Intelligence) program has finally succeeded: we have just received a message from an alien civilization in the CM Draconis 3 system. However, we have no idea what the message is. Is it the first 1000000 digits of π? Or is it a poem describing the life of the aliens? We have no way of knowing this until we manage to decode the message.

The first step of decoding the message is to look for patterns that are frequently repeated. The message is a sequence of digits, and your task is to find the 8-digit sequence that appears the highest number of times in the message. Note that the different appearances of a sequence can overlap, thus in the following sequence `11238811` appears 3 times:

`11238811238811444112388 11`

The message traveled almost 50 years in outer space, thus it might be slightly corrupted. Therefore, you have to count also those appearances where the 8-digit sequence appears with one error, that is, only 7 out of the 8 digits match. For example, in the following sequence `11238811` appears 3 times, each time with one error:

`11258811838811444112388 21`

As in this example, it can happen that the most frequent 8-digit sequence never occurs without error.

Input

The input contains several blocks of test cases. The first line of each test case contains an integer $8 \leq n \leq 30000$, the length of the input sequence. The second line contains a sequence of n digits.

The input is terminated by a block with $n = 0$.

Output

For each test case, you have to output a single integer on a separate line: the number of times the most frequently occurring 8-digit sequence appears (possibly with one error) in the sequence.

Sample Input

```
25
11238811238811444112388 11
25
11258811838811444112388 21
0
```

Sample Output

```
3
3
```