Phone Number

Time Limit: 1 Second
Memory Limit: 2048 MB

John Pork has an infinite number of phones. However, not all phones are usable since they need phone numbers. John Pork knows that Tim Cheese has a secret list of available phone numbers. In his search for Tim Cheese's list, John Pork has secretly found a long N digit number, S. John Pork knows that all phone numbers must be a number equal to a mod p, where p is prime. He thinks that S might be a list of phone numbers contatenated together without spaces, but he isn't sure. Help John Pork determine whether this is a valid list of phone numbers, and if so, find a possible splitting.

Input

On the first line, we have a single integer N ($1 \leq N \leq 10^5$), representing the number of digits in Tim Cheese's list of phone numbers.

On the next line, we have two integers a, p ($0 \leq a < p \leq 10^9$), meaning every phone number must be a number equal to a mod p.

On the next line, we have a string S of length N, representing Tim Cheese's list of phone numbers. It is guaranteed that each character of S is between '0' and '9'.

Output

If it is a valid list of phone numbers, output "YES" on the first line.

Then, on the second list, output k, the number of phone numbers you found.

Then, on each of the next k lines, output a phone number in the order of the original string S.

Otherwise, if it is not a valid list of phone numbers, output "NO".

If there are multiple solutions, output any of them.

Sample Inputs

```
8
2 7
16986393
```

Sample Outputs

```
YES
4
16
9
863
93
```

Sample Inputs

```
7
2 11
6251637
```

Sample Outputs

```
NO
```

Note

In the sample, you can split 16986393 into four disjoint segments, 16, 9, 863, 93. Each of these four numbers are 2 mod 7. Another possible splitting is 16 and 986393.