Given a string, remove characters until the string is made up of any two alternating characters. When you choose a character to remove, all instances of that character must be removed. Determine the longest string possible that contains just two alternating letters.

Example

$s = \text{'abaacdabd'}$

Delete a, to leave bcdbd. Now, remove the character c to leave the valid string bdbd with a length of 4. Removing either b or d at any point would not result in a valid string. Return 4.

Given a string s, convert it to the longest possible string t made up only of alternating characters. Return the length of string t. If no string t can be formed, return 0.

Function Description

Complete the alternate function in the editor below.

alternate has the following parameter(s):

- string s: a string

Returns.

- int: the length of the longest valid string, or 0 if there are none

Input Format

The first line contains a single integer that denotes the length of s.

The second line contains string s.

Constraints

- $1 \leq \text{length of s} \leq 1000$
- $s[i] \in \text{ascii[a-z]}$

Sample Input

```
STDIN       Function
-----       --------
10          length of s = 10
beabeefeab  s = 'beabeefeab'
```

Sample Output

```
5
```

Explanation

The characters present in s are a, b, e, and f. This means that t must consist of two of those characters and we must delete two others. Our choices for characters to leave are [a,b], [a,e], [a, f], [b, e], [b, f] and [e, f].

Change Theme Language Python 3

```
8
9   #
10  # Complete the 'alternate' function below.
11  #
12  # The function is expected to return an INTEGER.
13  # The function accepts STRING s as parameter.
14  #
15
16  def alternate(s):
17      x=set(s)
18      m=0
19      l=list(map(set,combinations(x,2)))
20      for i in l:
21          y=x-i
22          z=s
23          for j in y:
24              z=z.replace(j,"")
25          r=("".join(i))*(len(z)//2)
26          if r+r[0]==z or r==z or r==z[::-1] or r[1]+r==z:
27              m=max(m,len(z))
28      return m
29
30
31
```

Line: 15 Col: 1

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You solved this challenge. Would you like to challenge your friends?

Test case 0

Test case 1

Test case 2

Compiler Message

Success

Input (stdin) Download

```
1  10
```