Sweetest Sweets

November 2021
C++ — 2 SEC — 512 MB

Congratulations! A Golden Ticket! And not just any old Golden Ticket - a Golden Ticket to Susie's Sweetest Sweet Shop. You've won an exclusive tour of the factory, complete with dance-routines and a gigantic sucking pipe. But best of all: you get to select sweets straight from the Crazily Brilliant Candy Conveyor Belt, right at the heart of the factory.

Of course, you want to maximise the number of sweets you can take home, but Susie has strict stipulations about which Sweetest Sweets can be taken from the Conveyor Belt:

- All selected sweets must be consecutive.
- The selection must contain an equal number of each flavoured sweet.

Susie makes **s** different flavoured sweets and the Conveyor Belt contains **n** of them. The flavour of a sweet is denoted by a letter from the first **s** in the alphabet.

Take the conveyor belt `ABBBABABABAABBAB` for example. `BABABABAABBA` is a valid selection, in fact it is the longest such one, whereas `ABBBABABAB` is not.

INPUT You will be given integers **n** and **s**, denoting the length of the conveyor belt and the number of different sweet flavours respectively. The next line contains **n** characters from the first **s** letters of the alphabet, representing the sweets on the conveyor belt.

$1 \leq \mathbf{n} \leq 1{,}000{,}000$
$2 \leq \mathbf{s} \leq 20$

OUTPUT Output a single integer, the length of the largest valid selection of Sweetest Sweets you can take from the conveyor belt.

SAMPLE

INPUT	OUTPUT
16 2 ABBBABABABAABBAB	12
30 3 ABCABCBABCBABCBABABBACBABCBAB	6
20 4 ABBCDBCBDDDACDAACCDB	0