

424 - Longest Repeating Character Replacement

$s = \text{"AABBB"} , k = 2$

A A B B B
L

$k = 2$

R longest = ~~1~~ ~~2~~ ~~3~~ ~~4~~ 5

most freq = ~~A~~ B

A: ~~1~~ 2

B: ~~1~~ ~~2~~ 3

$s = \text{"CDABAE"} , k = 2$

C D A B A E
L

$k = 2$

R longest = ~~1~~ ~~2~~ ~~3~~ 4

most freq = ~~C~~ ~~D~~ ~~A~~ ~~B~~ A

C: ~~1~~ 0

D: ~~1~~ 0

A: ~~1~~ 2

B: 1

E: 1

Track frequencies of characters in the substring to determine the max. occurring character i.e. the one we don't replace.

replacements = length of substring - # occurrences of max. occurring character
→ must be $\leq k$ for a valid window