Problem: Given 2 strs, S and T return if they equal when both are typed out. Any '#' counts as backspace (# deletes the previous character)

"cb#d" -> cd

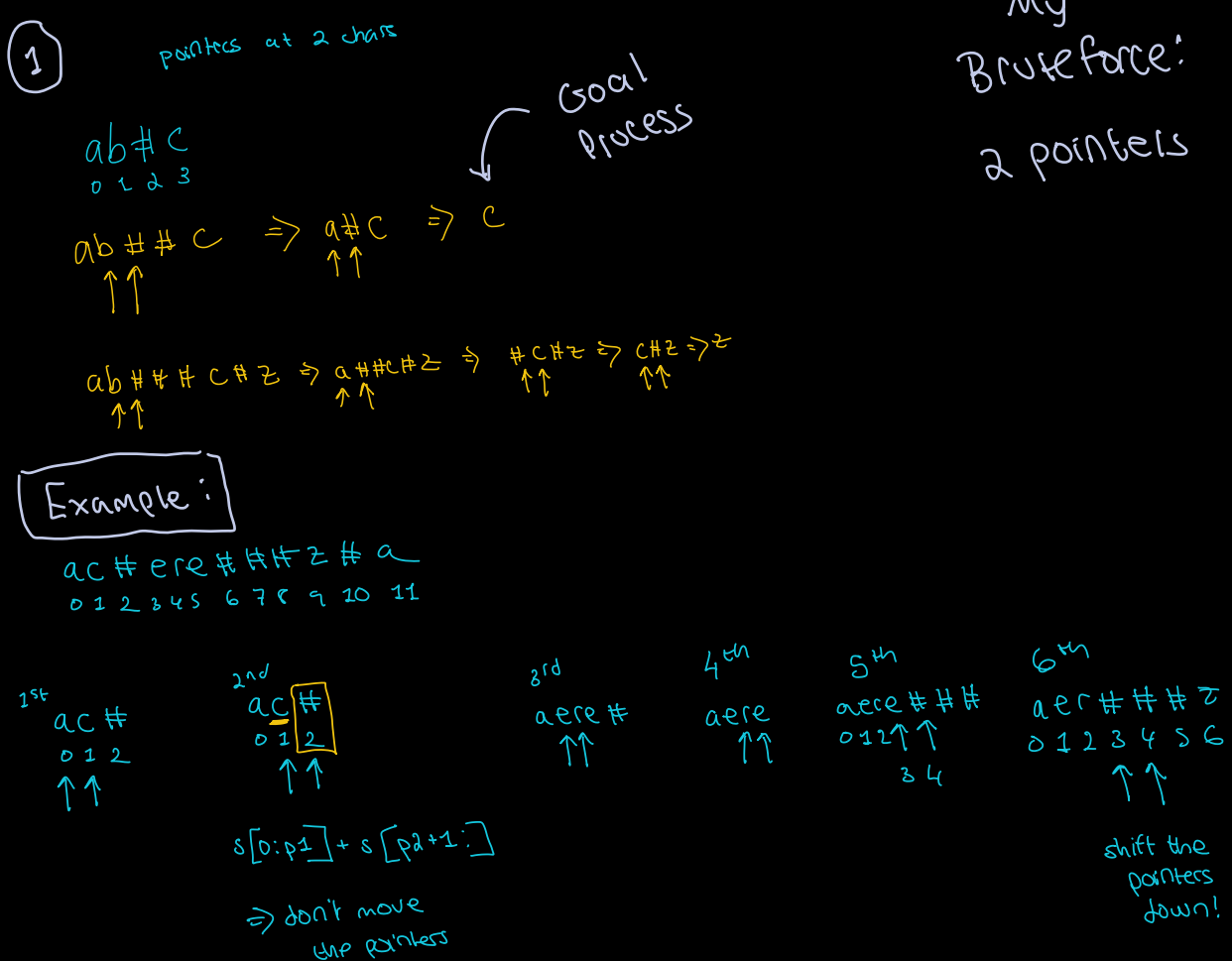
S: "ab#c" -> ac
T: "az#c" -> ac
return True

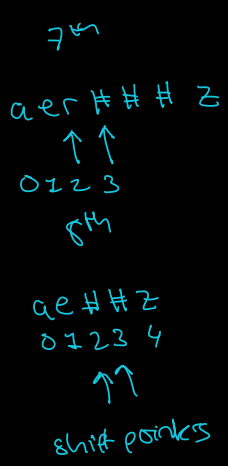
Intro:

- Verify Constraints
  - 2 #'s in a row? "ab##" -> ""
  - #'s if no character to remove: "a###b" -> "b"
  - Are two emptry strings equal to each other -> yes "" == ""
  - case sensitivity matters? yes "a" != "A"
- Create Testcases

Brute Force:

- Brainstorming & Pattern Observations





② MTCI

for str1 and str2

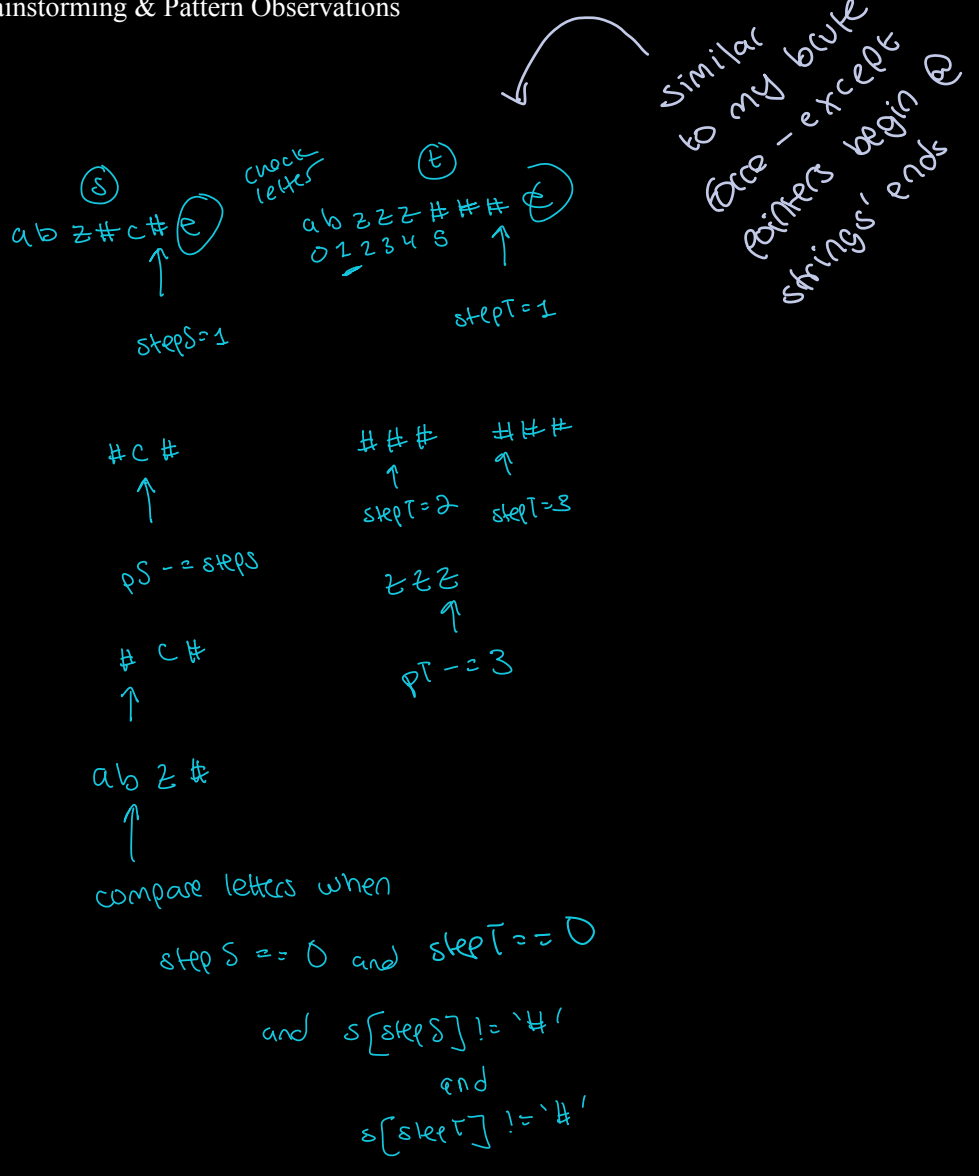
add chars to array
if char #, then delete last entry in array

compare 2 arrays

- Pseudocode
- Write code
- Run through testcases
- Analyze time and space complexity
  - My Brute Force:
    Time: O(a+b) = O(a) + O(b) — iterate thru whole array for str s — iterate thru whole array for str t — optimal space already
    Space: O(1) — only pointers used
  - MTCI:
    Time: O(a+b) = O(a) + O(b)
    Space: O(a+b) + O(a) + O(b) — b/c of storing the resulting string in an array — not optimal space

Optimal:

- Brainstorming & Pattern Observations



- Pseudocode
- Write code
- Run through testcases
- Analyze time and space complexity
  Time: O(a+b)
  Space: O(1)