Handle Generator

Objective
Give practice with reading and writing to standard input in C.
Give practice with loops and conditionals in C.

Story
You have just entered the mystical Gameland and you wish to earn some coins. There is a low paying beurotractic job you have been granted. It's fairly simple. You will take in someone's name and generate a handle based on it. The rules for generating a handle are pretty simple.
1. Any letter that is not the first or last letter of a name is removed and
2. any spaces are removed as well.

For example John Smith becomes JnSh. You have a lot of names to process, so you decided to write a program to do the work for you so you can do other things while the money comes in.

Problem
Given a list of newline-separated names consisting of only upper and lower case letters and spaces, generate a handle for each using the given rules.

Input
Input will begin with a line containing 1 integers, *n* (1 ≤ *n* ≤ 100,000), representing the number of names to process.   The following *n* lines will each contain a single name to process. Each name will have at most 100,000 characters of which can be upper or lower case Latin letters or spaces.

Each name will have at least one non-space character.

Output
Output should contain *n* lines. Each line will contain a corresponding resulting handle based on the input.

Sample Input	Sample Output
3 John Smith Travis Meade John Jacob Jingleheimer Schmidt	JnSh TsMe JnJbJrSt
1 Handsome lionel oversaw october lard	Helloworld

Explanation
Case 1
There are 3 names
"John Smith", "Travis Meade", and "John Jacob Jingleheimer Schmidt". The rules state that each needs to have the non-starting/ending characters removed.

For "John Smith" we remove "oh" and "mit". After which we remove the space and are left with "JnSh"

For "Travis Meade" we remove "ravi" and "ead" and the space. Which gives us "TsMe".

For "John Jacob Jingleheimer Schmidt", we remove "oh", "aco", "ingleheime", and "chmidt" and the three spaces. The remaining letters are "JnJbJrSt".

Case 2
There is only one name (phrase?). The name is "Handsome lionel oversaw october lard". The non-space letters to remove are "andsom", "ione", "versa", "ctobe", and "ar". After removing the spaces we have "Helloworld" left over.

Hints

Reading Input: I recommend reading in the first number using traditional scanf. Then use a loop to process each name (maybe with a function). The name processing should involve reading in each character of the name until a new line character is reached, but be careful, since there might be a newline character at the end of the line with the number of names.

Grading Criteria
- Read/Write from/to **standard** input/output (e.g. scanf/printf and no FILE *)
  - 10 points
- Good comments, whitespace, and variable names
  - 15 points
- No extra input output (e.g. input prompts, "Please enter the number of friends:")
  - 10 points
- Read in all the input
  - 5 points
- Loop over all the users
  - 10 points
- Programs will be tested on <u>10 cases</u>
  - 5 points <u>each</u>

No points will be awarded to programs that do not compile using "gcc -std=gnu11 -lm".

Sometime a requested technique will be given, and solutions without the requested technique will have their maximum points total reduced. For this problem use a loop and conditional. **_Without this programs will earn at most 50 points!_**

Any case that causes a program to return a non-zero return code will be treated as wrong. Additionally, any case that takes longer than the maximum allowed time (the max of {5 times my solutions time, 10 seconds}) will also be treated as wrong.

No partial credit will be awarded for an incorrect case.