Homework 4

Files to submit: **anagram.c**
Time it took Matthew to Complete**: 15 mins**

- All programs must compile without warnings when using the -Wall and -Werror options
- Submit only the files requested
  - Do **NOT** submit folders or compressed files such as .zip, .rar, .tar, .targz, etc
- Your program must match the output exactly to receive credit.
  - Make sure that all prompts and output match mine exactly.
  - Easiest way to do this is to copy and paste them
- All input will be valid unless stated otherwise
- Print all real numbers to two decimal places unless otherwise stated
- The examples provided in the prompts do not represent all possible input you can receive.
- All inputs in the examples in the prompt are underlined
  - You don't have to make anything underlined it is just there to help you differentiate between what you are supposed to print and what is being given to your program
- If you have questions please post them on Piazza

Restrictions

- No global variables are allowed
- Your main function may only declare variables, call other functions, and assign variables values.

For this problem you will be checking to see if two words are anagrams of each other. Two words are anagrams if the letters of one word can be rearranged to form the other word. For example Mary and army are anagrams because the letters in Mary can be rearranged to form army.

Assumptions

- User input will only contain alphabetical characters
- No word will be longer than 20 characters

Requirements

- Your check for an anagram should be case insensitive
  - For example ARMY and mary should be considered to be anagrams

Hints

- Don't forget that you can add and subtract characters
  - For example 'B' – 'A' is 1 and 2 + 'A' is 'C'

Examples

1. Please enter the first word: MaRy
   Please enter the second word: arMY
   MaRy is an anagram of arMY
2. Please enter the first word: dog
   Please enter the second word: god
   dog is an anagram of god
3. Please enter the first word: bob
   Please enter the second word: bobs
   bob is NOT an anagram of bobs
4. Please enter the first word: aap
   Please enter the second word: pap
   aap is NOT an anagram of pap