1] Suppose we are given an array of n integers, where each integer in the array represents a close price of a stock on a single day. We want to find a pair (buyDay, sellDay), with buyDay ≤ sellDay, such that if we bought the stock on buyDay and sold it on sellDay, we would maximize our profit. [Use the programming language of your choice]

INPUT:

You are given an array of size N.

Size of N can be anywhere from [1 to 10000]

OUTPUT:

You need to return maximum profit.

EXAMPLE:

If the input array was: [ 5, 2, 11, 3, 8, 5, 13, 1, 10 ]

ANS: max\_profit = 11 (buy when the price is 2 and sell when the price is 13)

2. Count the number of anagrams in the given list of words.

Note: An anagram is any single word which has the same letters in the same frequencies as another word from the dictionary.

Sample Input:

5

Spare

Spear

Python

Parse

Ear

Output: 3

Explanation: Spare, Spear and Parse are anagrams of each other

Sample Input:

4

Agree

Eager

Bin

Nib

Output: 4

Explanation: Agree and Eager are anagrams of each other. Bin and Nib are anagrams of each other.

3. Write the syntax or a short code snippet to read Integer data from a csv (comma separated value) file in either MATLAB, C++ or Python.