The Problem(P14 E8)

Given a list **L** of integers and a specific targeted value **k**, the problem is to find the indices **i** and **j** of two numbers in **L** such that **L[i] + L[j] = k**.

Develop a python program to find the indices **i** and **j** of two integers in a list **L** of integers, whose addition is equal to a given target value **k**. The input will be a file containing the list **L** of integers and targeted value **k**. The output should be the two indices **i** and **j** such that **L[i] + L[j] = k**. The output should be displayed on screen and written to a file "**Output.txt**".

Note: Assume that each input pair **L** and **k** would have exactly one solution.

Special requirement: You must <u>define at least 2 functions</u> and <u>use them</u> in your code.

Format:

Input: Name of input file
                (The input file will first contain the list *L* of integers enclosed in square brackets
                in which each integer is separated by a comma, and then the target integer value *k*.
                the list *L* and the target value *k* are on the same line separated by a space.)

Output: Display on screen and write to the output file "Output.txt" the two indices *i* and *j*
                on the list *L* of integers such that *L[i] + L[j] = k*. The two indices should be
                separated by space.

Sample:

<u>Case 1</u>   <u>Case 2</u>

Input: test_data1.txt   Input: test_data2.txt
Content: [2, 7, 11, 15]   9   Content: [11, -5, -4, 3, 4]   0

Output: Output.txt and on screen   Output: Output.txt and on screen
Content: 0   1   Content: 2   4