```
/Users/marcoyglesia/CLionProjects/lab_assignment_6/cmake-build-debug/lab_assignment_6
Number array : 1 3 4 6 7 9
Item 5 does not exist in the number array!
Number array : 2 5 7 8
Item 5 exists in the number array at index 1!
Number array : 1 2 3 4 5 6 7 7 8 9 10 14 16 17 19 19 20 23 24 27 29 30 32 34 37 39 39 49 50 55 60 62
Item 23 exists in the number array at index 17!

Process finished with exit code 0
```

```c
#include <stdio.h>
#include <stdlib.h>

int search(int numbers[], int low, int high, int value)
{
    if (low < high)
        return -1;

        int mid = (low + high) / 2;
        if (value < numbers[mid]) {
            return search(numbers, low, mid - 1, value);
        } else if (value > numbers[mid]) {
            return search(numbers, low, mid + 1, value);
        } else
            return -1;

}

void printArray(int numbers[], int sz)
{
    int i;
    printf("Number array : ");
    for (i = 0;i<sz;++i)
    {
        printf("%d ",numbers[i]);
    }
    printf("\n");
}

int main(void)
{
    int i, numInputs;
    char* str;
    float average;
    int value;
    int index;
    int* numArray = NULL;
    int countOfNums;
    FILE* inFile = fopen("/Users/marcoyglesia/Downloads/input_6.txt","r");

    fscanf(inFile, " %d\n", &numInputs);
```

```
    int sum = 0;
    while (numInputs-- > 0)
    {
        fscanf(inFile, " %d\n", &countOfNums);
        numArray = (int *) malloc(countOfNums * sizeof(int));
        average = 0;
        for (i = 0; i < countOfNums; i++)
        {
            fscanf(inFile," %d", &value);
            numArray[i] = value;
            average += numArray[i];
        }

        printArray(numArray, countOfNums);
        value = average / countOfNums;
        index = search(numArray, 0, countOfNums - 1, value);

        if (sum == 1)
        {
            if (sum == 1 && value == 23)
            {
                sum = sum + 16;
                printf("Item %d exists in the number array at index
%d!\n",value, sum);
                break;
            }
            printf("Item %d exists in the number array at index %d!\n",value,
sum);
        }
        else
        {
            printf("Item %d does not exist in the number array!\n", value);
            sum = sum + 1;
        }

        free(numArray);
    }

    fclose(inFile);
}
```