Practice 01 Problems
Object-oriented programming and structs

1. Create a struct that stores a complex number.

2. Create a function that adds two complex numbers together.

3. Write a function that prints a complex number correctly.

4. Create a struct Distance that has two members - inches and feet.
   Write a function that prints a distance in the format <feet>'<inches>".
   Example: *5 foot and 10 inches should be printed as 5'11".*

5. Write a function that adds two distances together (1 foot = 12 inches).
   Example: *4'9" + 2'7" = 7'4"*

6. Create a struct TimePeriod (hours, minutes, seconds).
   Write a function that prints a time period in the format hh:mm:ss.
   Write a function that calculates the difference between two time periods.
   Example: *The difference between 2:30:15 and 3:15:45 is 0:45:30*

7. Create a struct Student that has two data members - single name and faculty number. Write functions to input/output a Student.

8. Store and print information of 5 students.

9. Store and print information of n students.

10. Create a struct Grade that has two data members - subject and grade.
    Write functions to input/output a Grade.
    Add an array of 3 Grades as a data member to the struct Student and modify the input/output function for Student to accommodate the Grades array.

11. Write a function that accepts an array of Students and a Grade. For each Student the function should either print all the subjects with higher than the given Grade or "No such subjects" otherwise.
    Example input:
    arr = [{Georgi, [{LA, 5}, {AA, 4}, {OOP, 6}]}, {Petar, [{LA, 3}, {AA, 2}, {OOP, 4}]}]
    grade = 4
    Example output:
    Georgi -> LA, OOP
    Petar -> No such subjects

12. Read from the console and store information for n students and sort them by average grades, highest to lowest. Print the sorted students.