TP2: Variable

Lab's objectives:

- Getting input and display output via **printf** and **scanf**
- Using variables
- Using math library to perform math operations and string library to explore string functions.

Deadline: 6 days

Problem1: Write a C program to get an amount in dollars from a user. Then find the amount in riels.

Ex:Input: how many dollars? 2.5
Output: 2.5 $ is equal to 10000 riels.

Problem2: Write a C program to get a number of MB from a user. Then find the number of GB.

Ex: how many MB? 1020
Output: 1020 MB is equal to 1 GB

Problem3: Write a C program to get a number from a user. Then find the square as well as the cube of that number.

Ex: Input: 2
Output: Square of 2 is 4 , and Cube of 2 is 8.

Problem4: Write a C program that can convert the time (hour, minute, second) to second.

INPUT:

Enter hour : 5
Enter minute : 45
Enter second : 50

OUTPUT:

The above time is equal to 20750 seconds.

Problem5: Write a C program to convert time in second to a time format including hour, minute and second.

INPUT:

Input time in second (s) : 10000

OUTPUT:

The time second of 10000 equals 2h 46mn 40s.

Problem6: Write a C program to compute formulas and display results. This program asks a user to input integer number x and y then compute all formulas below:

$$f1 = 2x - 3y^3/2$$

$$f2 = (x^2 - 3y)/(\sqrt[3]{2x - 1})$$

$$f3 = (\sqrt{x^3 - y^2} - 3y)/2$$

$$f4 = sin(x) - 3cos(x)/2$$

Problem7: Write a C program to perform operations with strings. The header library string.h is used. The user is required to input his/her first name then his/her last name. The program will be able to

A. Display username by concatenating the first name and last name together in lowercase with underscore.
B. Tell the number of characters of the first name, number of characters of the last name.
C. Show the first character of the last name and the last character of the first name.

INPUT:

Enter your first name: John
Enter your last name: Doe

OUTPUT:

A. Concatenation between first name and last name is: john_doe
B. Total characters of first name is 4 and total characters of last name is 3.
C. First character of the last name is: D and the last character of the first name is n.