Name: _____ **ID:** _____

Due: today or in a lab session next week

Instructions:

- Marking lab assignments will be done in the lab
- **Compile** and **Run** your program
- **Show** and **Explain** the output and your code to the lecturer or the lab assistance.

-------------------------------------- **Lab Assignments** ------------------------------------

Lab 1: Use switch-case statement to create the vending machine menu. The program receives a character input from the user where 1 is *Coke*, 2 is *Est Cola*, 3 is *Oishi green tea, and* 4 is *Sprite*. When the customer press a number in range on the machine, the system must show output as follow:

Otherwise, display "Invalid number!"

Expected output:

3 You have ordered: Oishi Green Tea	8 Invalid drink number!

Lab 2: Write a program to find the maximum number between three given numbers using switch-case. The user has to input three integer numbers.

Example output:

`121 56 3` `Max number is 121`	`50 100 11` `Max number is 100`

Lab 3: Based on the following code, amend the code using `goto` keyword to allow user to re-input the number if the previous input is negative number. Show the results and explain how the `goto` keyword works:

```c
# include <stdio.h>
int main()
{
        double number;
        printf("Enter a number:");
        scanf("%lf",&number);
        if(number < 0.0)
          printf("number is negative");
        else
          printf("number is positive");
    return 0;
}
```

Lab 4: Do the question 1 by using the ternary operator.

Bonus Lab 1: Write a basic calculator program using switch-case statement which can support four arithmetic operators (plus (+), minus (-), multiply (*), and divide (/)). The program must take two numeric and one operator as inputs from a user. The following is the example result of the program:

Example output:

Select an operator either (+,-,*,/) / Enter two numbers: 8 2 8.0 / 2.0 = 4.0	Select an operator either (+,-,*,/) - Enter two numbers: 2 9 2.0 - 9.0 = -7.0