Assignment Submission Guidelines:

Individually submit through dropbox on avenue as a single pdf file named as **A#_YourID_YourName**.
Your assignment must include following components:

1. Full Name and ID.
2. Problem number and statement.
3. Algorithm (if required)
4. Code for this problem (if required)
5. A clear Screen shot of this code in the editor. (Code should contain proper **COMMENTS** for all statements. First comment must include your authorship. **//Author: Full Name ID**)
6. A clear Screen shot of the execution for each problem.

Assignment Instructions:

For the following exercises, please perform each of these steps:

- ✓ Read the problem statement.
- ✓ Formulate the algorithm using pseudo code and top-down, stepwise refinement.
- ✓ Write a C program.
- ✓ Test, debug and execute the C program.

1. *(Sales Commission Calculator)* One large chemical company pays its salespeople on a commission basis. The salespeople receive $200 per week plus 9% of their gross sales for that week. For example, a salesperson who sells $5000 worth of chemicals in a week receives $200 plus 9% of $5000, or a total of $650. Develop a program that will input each salesperson's gross sales for last week and will calculate and display that salesperson's earnings. Process one salesperson's figures at a time. Here is a sample input/output dialog:

   > Enter sales in dollars (-1 to end): 5000.00
   >
   > Salary is: $650.00
   >
   > Enter sales in dollars (-1 to end): 1234.56
   >
   > Salary is: $311.11
   >
   > Enter sales in dollars (-1 to end): -1

2. *(Find the Largest Number)* The process of finding the largest number (i.e., the maximum of a group of numbers) is used frequently in computer applications. For example, a program that determines the winner of a sales contest would input the number of units sold by each salesperson. The salesperson who sells the most units wins the contest. Write a pseudo code program and then a program that inputs a series of 10 non-negative numbers and determines and prints the largest of the numbers. *Hint*: Your program should use three variables as follows:

   > Counter: A counter to count to 10 (i.e., to keep track of how many numbers have been input and to determine when all 10 numbers have been processed)
   >
   > Number: The current number input to the program
   >
   > Largest: The largest number found so far

3. What does the following program segment do?

```
1  for ( i = 1; i <= 5; ++i ) {
2         for ( j = 1; j <= 3; ++j ) {
3                 for ( k = 1; k <= 4; ++k )
4                         printf( "%s","*");
5                 puts( "");
6         }
7         puts( "");
8  }
```