

## COSC1336 “Programming Fundamentals I”

## Flowchart Lab

**Draw flowchart AND write pseudo code for each of the following problems.**

1. User asks you to develop a program that calculates and then prints interest earned on a bank balance. Program should print interest earned for the same balance when interest is accumulated annually, semiannually and quarterly.

Interest earned yearly=balance \* rate /100 for annual

Interest earned semiannually = balance \* rate / 2 / 100 for semi annual

Interest earned quarterly= balance\*rate/4/100 for quarterly

2. Ohm's law state that volts (V) is Current (I) times resistance (R)  
 $V=I \cdot R$

Calculate volts given the current and resistance for a circuit.

3. Boeing 747 uses fuel at the rate of 4,776 gallons per hour at cruising speed and 2600 gallons for takeoff and 1500 gallons for landing. Calculate the fuel needed for a trip. User will input the trip length in hours.

4. User asks you to develop a program to calculate and print weekly payroll. Calculations must take into account the following: User input ?

- a. Income tax rate is rate is 15% (.15\*salary)
  - b. Social Security tax is 7.65% (.0765\*salary)
  - c. Display salary, income tax, social security tax, and net pay  
net pay=salary-income tax – social security tax