Q1. Write a program in C/C++ that computes monthly payment on a housing loan using the following formula:

Monthly Payment = 

*Rate*: is the monthly interest rate, which is annual interest rate divided by 12. (Note: A 12% annual interest rate would be 1% of monthly interest).

*N*: is the number of payments.

*L*: is the amount of the loan.

The program prompts the user to enter the *loan amount*, *annual interest rate* and *number of monthly payments* to be made. It also computes the *total payment* and *total interest*. The program input and output must be in the format as shown in the sample below:

Loan amount: $**30000.00**

Annual interest rate (in the format .12 (for 12%): **.18**

Number of monthly payments: **60**

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Loan Amount: $ 30000.00

Monthly Interest Rate: 1.50%

Number of Payments: 60

Monthly Payment: $ 761.80

Total Payment: $ 45708.17

Total Interest: $ 15708.17

Q2. Write a program that accepts three (3) input parameters for the values of *initial velocity, final velocity* and *time*. The function shall calculate the *acceleration* based on the formula:

***a = v – u***

***t***

a = acceleration

v = final velocity

u = initial velocity

t = time

Q3. Suppose you are given the formula below:

*future value* = *investment amount* \* (1 + *interest rate* / 100)

Write a C/C++ program that prompts user to enter the investment amount (e.g. 1000) and the interest rate (e.g. 9%), and print a table that displays future value for the years from 1 to 5, as shown below:

The amount invested: **1000**

Annual interest rate (%): **9**

Years Future value

1 1090.00

2 1188.10

3 1295.03

4 1411.58

5 1538.62

*Note: The figures in bold are typical responses entered by the user.*