#include <iomanip>

#include <iostream>

#include <string>

using namespace std;

#include <math.h>;

int main()

{

//Data

double balance;

double rate;

int time; //number of times compounded during a year

double interest; //final interest

double finalBalance; //final balance

//Get user input

cout << "What's your principal balance? ";

cin >> balance;

cin.ignore(1000, 10);

cout << "What's your interest rate? ";

cin >> rate;

cin.ignore(1000, 10);

cout<< "What's the number of times the interest is compounded? ";

cin >> time;

cin.ignore(1000, 10);

cout << endl;

//Calculations

rate = rate / 100;

finalBalance = balance \* pow((1 + rate / time), time);

interest = finalBalance - balance;

cout << left << setw(25) << "Interest Rate: " << right << setw(8) << rate \* 100 << "%" << endl;

cout << left << setw(25) << "Times Compounded: " << right << setw(8) << time << endl;

cout << fixed;

cout << setprecision(2);

cout << left << setw(25) << "Principal: " << "$" << right << setw(8) <<balance << endl;

cout << left << setw(25) << "Interest: " << "$" << right << setw(8) <<interest << endl;

cout << left << setw(25) << "Final balance: " << "$" << right << setw(8) <<finalBalance << endl;

return 0;

}