JIMMA UNIVERSITY

JIMMA INSTITUTE OF TECHNOLOGY

Faculty of computing and informatics

Information science

Computer programming individual assignment

Name: Amriya Miftah
ID No:RU2131/14

Submitted to:-

Submission date:-

1. // This program calculates the product of three integers
// Declare variables of type int
int x, y, z, result;
// Prompt user to enter three integers
cout << "Please enter three integers: ";
// Read three integers from keyboard and store them in x, y, and z
cin >> x >> y >> z;
// Compute the product of x, y, and z and assign the result to variable result
result = x * y * z;

// Print the product

cout << "The product is " << result << endl;

// Return a value from main indicating that the program terminated successfully

return 0;

2. #include <iostream>
using namespace std;
int main()
{
int num1, num2, sum, diff, prod;
float div;
cout << "Enter the first number: ";
cin >> num1;
cout << "Enter the second number: ";
cin >> num2;
sum = num1 + num2;
diff = num1 - num2;
prod = num1 * num2;
div = (float)num1 / num2;
cout << "Sum = " << sum << endl;
cout << "Difference = " << diff << endl;
cout << "Product = " << prod << endl;
cout << "Quotient = " << div << endl;
if (num1 > num2) {
cout << num1 << " is greater than " <<num2<< endl;
cout << num2 << " is smaller than " << num1 << endl;}
else if (num1 < num2) {
cout << num2 << " is greater than " << num1 << endl;
cout << num1 << " is smaller than " << num2 << endl; }
else {
cout << "Both numbers are equal" << endl;}

Return 0;}

3.
```
#include <iostream>
#include <cmath>
using namespace std;
int main() {
   double radius, circumference, pi=3.14159;
cout << "Enter the radius of the circle: ";
   cin >> radius;
circumference = 2 * pi * radius;
cout << "The circumference of the circle is: " << circumference << endl;
return 0;
}
```
4.
```
#include <iostream>
#include <math.h>
using namespace std;
int main() {
  double a, b, c, root1, root2, discriminant;
  cout << "Enter coefficients a, b and c: ";
  cin >> a >> b >> c;
  discriminant = b * b - 4 * a * c;
  if (discriminant > 0) {
    root1 = (-b + sqrt(discriminant)) / (2 * a);
    root2 = (-b - sqrt(discriminant)) / (2 * a);
    cout << "Roots are real anddifferent."<<endl;
    cout << "Root 1 = " << root1 << endl;
    cout << "Root 2 = " << root2 << endl;}
else if (discriminant == 0) {
    root1 = root2 = -b / (2 * a);
    cout << "Roots are real and same." << endl;
    cout << "Root 1 = Root 2 = " << root1 << endl;
  } else {
    double realPart = -b / (2 * a);
    double imaginaryPart = sqrt(-discriminant) / (2 * a);
    cout << "Roots are complex and different." << endl;
    cout << "Root 1 = " << realPart << "+" << imaginaryPart << "i" << endl;
    cout << "Root 2 = " << realPart << "-" << imaginaryPart << "i" << endl;
  }
  return 0;
}
```