COMPUTER PROJECT

1)/**

* Name:Tanvi Agarwal

* Sample Program

* Class IX Sec:46

* Roll No:46

* A program in Java assign 3 numbers 12.5,8.0and9.1 suitable variables.Compute their sum and product.Print sum and product.

*/

```
public class pro1
{
    public static void main(String[]args)
    {
        //Assigning values to variables
        double num1 = 12.5;
        double num2 = 8.0;
        double num3 = 9.1;

        //Calculating the sum
        double sum = num1+num2+num3;

        //Calculating the product
        double product = num1*num2*num3;
```

```
        //Print the values
        System.out.println("The sum
of"+num1+","+num2+",and"+num3+"is"+sum);
        System.out.println("The product
of"+num1+","+num2+",and"+num3+"is"+product);
    }
}
```

```
The sum of12.5,8.0,and9.1is29.6
The product of12.5,8.0,and9.1is910.0
```

2)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * A program in Java to assign radius with a value of your choice.Find
and print area of circle using the formula.
 */
public class CircleArea
{
    public static void main(String[]args)
    {
        //Assigning A value to the radius
```

```
        double radius = 7.5;


        //Calculating the area of the circle
        double area = Math.PI*Math.pow(radius,2);


        //Printing the result
        System.out.println("The area of the circle with
radius"+radius+"is:"+area);
    }
}
```

```
The area of the circle with radius7.5is:176.71458676442586
```

3)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * A program in Java to assign principal(P), rate of interest(R), and
time period(T)with suitable values of your choice.Calculate and print
the simple interest using the formula.
 */
 import java.util.Scanner;
 public class SimpleinterestCalculator
 {
```

```
    public static void main(String[]args)
    {
        Scanner scanner = new Scanner(System.in);
      //Input principal amount
      System.out.println("Enter the principal amount(P):");
      double P = scanner.nextDouble();
      //Input rate of interest
      System.out.println("Enter the rate of interest(R):");
      double R = scanner.nextDouble();
      //Input time period
      System.out.println("Enter the time period(T):");
      double T = scanner.nextDouble();
      //Calculate Simple Interest
      double SI = P*R*T/100;
      //Print the result
      System.out.println("The simple interest is:"+SI);
      scanner.close();
    }
}
```

```
Enter the principal amount(P):
10000
Enter the rate of interest(R):
10
Enter the time period(T):
2
The simple interest is:2000.0
```

4)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * A program to initialize the characters 'B','b','Y','y','@','3'and'8'to suitable character variables and print the ASCII codes (or numeric codes) of each character.
 */
 public class ASCIICodePrinter
 {
    public static void main(String[]args)
  {
    //Initializing character variables
    char char1 = 'B';
    char char2 = 'b';
    char char3 = 'Y';
    char char4 = 'y';
    char char5 = '@';
    char char6 = '3';
    char char7 = '8';
    //Printing the ASCII codes of each character
    System.out.println("The ASCII code of"+char1+"is"+(int)char1);
```

```
    System.out.println("The ASCII code of"+char2+"is"+(int)char2);
    System.out.println("The ASCII code of"+char3+"is"+(int)char3);
    System.out.println("The ASCII code of"+char4+"is"+(int)char4);
    System.out.println("The ASCII code of"+char5+"is"+(int)char5);
    System.out.println("The ASCII code of"+char6+"is"+(int)char6);
    System.out.println("The ASCII code of"+char7+"is"+(int)char7);
  }
}
```

```
The ASCII code ofBis66
The ASCII code ofbis98
The ASCII code ofYis89
The ASCII code ofyis121
The ASCII code of@is64
The ASCII code of3is51
The ASCII code of8is56
```

5)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * A class sample initialize the 2 integers 'm' and 'n' with the values 25 and 31.Interchange the values of 'm' and 'n'.Print the values of 'm' and 'n' beforeand after interchange.
 */
 public class Sample
```

```
{
   int m = 25;
   int n = 31;
   public void interchange()
   {
      //Printing  the values before interchange
      System.out.println("Before Interchange:");
      System.out.println("m="+m);
      System.out.println("n="+n);
      //Interchanging the values without using assignment
      m = m+n;//m now becomes 56(25+31)
      n = m-n;//n now becomes 25(56-31)
      m = m-n;//m now becomes 31(56-25)
      //Printing the values after interchange
      System.out.println("After Interchange:");
      System.out.println("m="+m);
      System.out.println("n="+n);
   }
   public static void main(String[]args)
   {
      Sample sample = new Sample();
      sample.interchange();
   }
}
```

```
Before Interchange:
m=25
n=31
After Interchange:
m=31
n=25
```

6)

```
/**
 * Name:Tanvi Agarwal
 * Sample program
 * Class IX Sec:B
 * Roll No:46
 * Write a program to assign an uppercase letter 'C' and a lowercase letter 'f' to suitable character variables.Convert the uppercase letter to lowercase form and the lowercase letter in uppercase form.Print the original and converted letter
 */
 public class CharacterConverter
 {
    public static void main(String[]args)
    {
        //Assigning uppercaseletter 'C' and lowercase letter 'f' to character variables
```

```
        char uppercaseLetter = 'C';

        char lowercaseLetter = 'f';

        //Converting uppercase letter to lowercase form without using predefined functions

        char convertedUppercase = (char) (uppercaseLetter + 32);//Adding 32 to convert to lowercase ASCII value

        //Converting lowercase letter to uppercase form without using predefined functions

        char convertedLowercase = (char) (lowercaseLetter- 32);//Subtracting 32 to convert to uppercase ASCII value

        //Printing the original and converted letters

        System.out.println("Original uppercase letter:"+uppercaseLetter);

        System.out.println("Converted uppercase letter:"+convertedUppercase);

        System.out.println("Original lowercase letter:"+lowercaseLetter);

        System.out.println("Converted lowercase letter:"+convertedLowercase);

    }

 }
```

```
Original uppercase letter:C
Converted uppercase letter:c
Original lowercase letter:f
Converted lowercase  letter:F
```

7)

```
/**
 * Name:Tanvi Agarwal
 * Sample program
 * Class IX Sec:B
 * Roll No:46
 * Specify a class Time to initialize the value of time as 137.Convert the time into hours and minutes (where 60minutes = 1hour).Print the values of hours and minutes.
 */
public class Time
{
    public static void main(String[]args)
    {
        int Timeinminutes = 137;
        //Convert time to hours and minutes
        int hours = Timeinminutes/60;
        int minutes = Timeinminutes%60;
        //Print the values of hours and minutes
        System.out.println("Time:"+Timeinminutes+"minutes");
        System.out.println("Hours:"+hours);
```

```
        System.out.println("Minutes:"+minutes);
    }
}
```

```
Time:137minutes
Hours:2
Minutes:17
```

8)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Specify a class to initialize the integer values 39 and 10.Using ternary operator find and print the largest integer.
 */
public class Largestinteger
{
    public static void main(String[]args)
    {
        int num1 = 39;
        int num2 = 10;
```

```
        //Using ternary operator to find the largest integer
        int largest = (num1>num2)?num1:num2;
        //Printing the largest integer
        System.out.println("The largest integer is"+largest);
    }
}
```

```
The largest integer is39
```

9)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * CLASS IX Sec:B
 * Roll No:46
 * Write a program to define a method void Result(long roll,int sub1,int sub2,and int sub3)to input roll number(roll),marks in three subjects in sub1,sub2,and sub3(out of 100 each).Calculate the total marks and percentage.Print the roll marks and percentage.
 */
import java.util.Scanner;
public class Result
{
    public static void main(String[]args)
```

```
    {
        Scanner scanner = new Scanner(System.in);
        //Input Roll number and marks in three subjects
        System.out.print("Enter roll number:");
        int roll = scanner.nextInt();
        System.out.print("Enter marks in sub1:");
        int sub1 = scanner.nextInt();
        System.out.print("Enter marks in sub2:");
        int sub2 = scanner.nextInt();
        System.out.print("Enter marks in sub3:");
        int sub3 = scanner.nextInt();
        //Calculate total marks and percentage
        int totalmarks = sub1+sub2+sub3;
        double percentage = (totalmarks/300.0)*100;//Assuming each
subject is out of 100
        //Print Roll No, marks and percentage
        System.out.println("Roll No:"+roll);
        System.out.println("Marks in subject 1:"+sub1);
        System.out.println("Marks in subject 2:"+sub2);
        System.out.println("Marks in subject 3:"+sub3);
        System.out.println("Total marks:"+totalmarks);
```

```
        System.out.println("Percentage:"+percentage+"%");
    }
}
```

```
Enter roll number:46
Enter marks in sub1:90
Enter marks in sub2:56
Enter marks in sub3:91
Roll No:46
Marks in subject 1:90
Marks in subject 2:56
Marks in subject 3:91
Total marks:237
Percentage:79.0%
```

10)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Write a program to define the following:  *Public double Wages(double rate,int days)-to input arguments rate(rate per day)and days(number of days extra worked).Calculate and return the total wages(rate * number of days).  *Public void main()-to initialize the suitable values of rate and days and call or invoke the function double Wages(double rate,int days)to calculate and print the total wages.
 */
```

```
import java.util.Scanner;
public class WagesCalculator
{
   //Method to calculate total wages
   public double calculateWages(double rate,int days)
   {
      return rate*days;
   }
   //Method to initialize values and call calculateWages method
   public void main()
   {
      Scanner scanner = new Scanner(System.in);
      //Input rate and days
      System.out.println("Enter rate per day");
      double rate = scanner.nextDouble();
      System.out.println("Enter number of days worked extra");
      int days = scanner.nextInt();
      //Calculate and print total wages
      double totalWages = calculateWages(rate,days);
      System.out.println("Total Wages:"+totalWages);
      scanner.close();
   }
   public static void main(String[]args)
   {
```

```
        //Create an instance of the class and call the main method
        WagesCalculator calculator = new WagesCalculator();
        calculator.main();
    }
}
```

```
Enter rate per day
6
Enter number of days worked extra
7
Total Wages:42.0
```

11)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Create a class Mall and to input name of a product in Name,product code in pc(long integer),quantity purchased in qty and price of product in pr(decimal).Calculate the total cost of the product ,15.5% discount on total cost and net price to be paid after the discount.Print name of the product,product code,total cost,discount and the net amount to be paid.
 */
import java.util.Scanner;
public class Mall{
```

```
    private String productName;
    private long productCode;
    private int quantityPurchased;
    private double price;
//Method to input product details
public void inputProductDetails(){
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter name of the product");
    productName = scanner.nextLine();
    System.out.print("Enter product code");
    productCode = scanner.nextLong();
    System.out.print("Enter quantity purchased");
    quantityPurchased = scanner.nextInt();
    System.out.print("Enter price of the product");
    price = scanner.nextDouble();
    scanner.close();
}
//Method to calculate total cost
public double calculateTotalCost(){
    return quantityPurchased*price;
}
//Method to calculate discount
public double calculateDiscount(double totalCost){
    return 0.155*totalCost;
```

```
}
//Method to calculate net price after discount
public double calculateNetPrice(double totalCost,double discount){
   return totalCost-discount;
}
//Method to display product details and net price after discount
public void displayDetailsAndNetPrice(){
   double totalCost = calculateTotalCost();
   double discount = calculateDiscount(totalCost);
   double netPrice = calculateNetPrice(totalCost,discount);
   System.out.println("Product Name ="+productName);
   System.out.println("Product Code ="+productCode);
   System.out.println("Total Cost ="+totalCost);
   System.out.println("Discount ="+discount);
   System.out.println("Net Amount to be Paid ="+netPrice);
}
public static void main(String[]args){
   Mall mall = new Mall();
   mall.inputProductDetails();
   mall.displayDetailsAndNetPrice();
}
}
```

```
Enter name of the productSooji
Enter product code46
Enter quantity purchased90
Enter price of the product100
Product Name =Sooji
Product Code =46
Total Cost =9000.0
Discount =1395.0
Net Amount to be Paid =7605.0
```

12)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Write a program to accept the salary of an employee in sal(in decimal) number of days extra days(integer) and rate per day in rate(in decimals).Calculate the weight of the employee as salary+extra days*rate per day.Print the wages of the employee.
 */
import java.util.Scanner;
public class EmployeeWages {
    public static void main(String[]args) {
        Scanner scanner = new Scanner(System.in);
        //Input salary,number of extra days and rate per day
        System.out.println("Enter salary of the employee");
        double salary = scanner.nextDouble();
```

```
        System.out.println("Enter number of days extra worked");
        int extraDays = scanner.nextInt();
        System.out.println("Enter rate per day");
        int ratePerDay = scanner.nextInt();
        //Calculate wages
        double Wages = salary+(extraDays*ratePerDay);
        //Print the wages of the employee
        System.out.println("Wages of the employee="+ Wages);
        scanner.close();
    }
}
```

```
Enter salary of the employee
12500
Enter number of days extra worked
10
Enter rate per day
8
Wages of the employee=12580.0
```

13)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Write a program input radius(R) in decimals and height of a cylinder(H).Compute and print the volume of cylinder.
```

```
*/
import java.util.Scanner;
public class CylinderVolume
{
   public static void main(String[]args)
   {
      Scanner scanner = new Scanner(System.in);
      //Input radius and height of cylinder
      System.out.println("Enter the value of radius");
      double radius = scanner.nextDouble();
      System.out.println("Enter the value of height");
      double height = scanner.nextDouble();
      //Calculate volume of cylinder
      double volume = Math.PI*radius*radius*height;
      //Print the volume of cylinder
      System.out.println("Volume of cylinder="+ volume);
      scanner.close();
   }
}
```

```
Enter the value of radius
7.5
Enter the value of height
9.1
Volume of cylinder=1608.1027395562753
```

14)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Write a program input height of a student in inches.Convert the height into feet and inches.Print the height and height in feet and inches.(where 1feet = 12inches)
 */
 import java.util.Scanner;
 public class HeightConverter
 {
    public static void main(String[]args)
    {
        Scanner scanner = new Scanner(System.in);
        //Input height in inches
        System.out.println("Enter height of the student in inches");
        int heightininches = scanner.nextInt();
        //Convert height to feet and inches
        int feet = heightininches/12;
        int inches = heightininches%12;
        //Print the height in inches and feet with inches
        System.out.println("Height:"+heightininches+"Inches");
        System.out.println("Height in feet and inches:"+feet+"feet"+inches+"inches");
```

```
        scanner.close();
    }
}
```

```
Enter height of the student in inches
13
Height:13Inches
Height in feet and inches:1feet1inches
```

15)

```
/**
 * Name:Tanvi Agarwal
 * Sample Program
 * Class IX Sec:B
 * Roll No:46
 * Define a class Triangle to input three sides in a,b and c.Evaluate and print the area of triangle using the given formula.
 */
import java.util.Scanner;
public class Triangle
{
    public static void main(String[]args)
    {
        Scanner scanner = new Scanner(System.in);
```

```
        //Input lengths of three sides of the triangle
        System.out.println("Enter the length of side:a");
        double a = scanner.nextDouble();
        System.out.println("Enter the length of side:b");
        double b = scanner.nextDouble();
        System.out.println("Enter the length of side:c");
        double c = scanner.nextDouble();
        //Calculate semi-perimeter
        double s = (a+b+c)/2;
        //Calculate area using Hero's formula
        double area = Math.sqrt(s*(s-a)*(s-b)*(s-c));
        //Print the area of triangle
        System.out.println("Area of trianle:"+area);
        scanner.close();
    }
}
```

```
Enter the length of side:a
56
Enter the length of side:b
111
Enter the length of side:c
120
Area of trianle:3096.746024054927
```