CT / 2021 / 059

  K . S . K . Y . Perera

CTEC 22043 - Object Oriented Programming =LAB Worksheet 02=

Q1.

Code:

|  |
| --- |
| ***package Q\_01;  public class Q1***  ***{  public static void main(String[] args)***  ***{  double A = 1.0;  double B = 2.0;  double C = 3.0;  double X = 4.0;  double Y = 5.0;  double R = 3.14;   double resultA = Math.sqrt(Math.pow(B,2) + 4 \* A \* C );  System.out.println("The square root of B² + 4AC : " + resultA);   double resultB = Math.sqrt(X + 4 \* Math.pow(Y,3));  System.out.println("The square root of X + 4Y³ : " + resultB);   double resultC = Math.cbrt(X \* Y);  System.out.println("The cube root of the product of X and Y : "***  ***+ resultC);   double resultR = Math.PI \* Math.pow(R ,2);  System.out.println("The area of a circle : " + resultR);  }  }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q2.

Code:

|  |
| --- |
| ***package Q\_02;  import java.util.Scanner;  public class Q2 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);   double CM\_Per\_Inch = 2.54;  int Inch\_Per\_CM = 12;   System.out.println("Enter length in CM :");  double CM = input.nextDouble();   double totalInch = CM / Inch\_Per\_CM;  double totalfeet = totalInch / 12 ;   System.out.println("Feets : " + totalfeet +***  ***“ inches : " + totalInch)   }   }*** |

A screen shot of a computer

AI-generated content may be incorrect.Output:

Q3.

Code:

|  |
| --- |
| ***package Q\_03;  import java.util.Scanner;  public class Q3 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  System.out.print("Enter temperature in degrees Celsius : ");  double Celsius = input.nextDouble();   double Fahrenheit = Math.sqrt((1.8 \* Celsius ) + 32 );  System.out.println("Fahrenheit : " + Fahrenheit);   } }*** |

A screen shot of a computer

AI-generated content may be incorrect.Output:

Q4.

Code:

|  |
| --- |
| ***package Q\_04;  import java.util.Scanner;  public class Q4 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  System.out.print("Enter your weight in pounds: ");  double weight = input.nextDouble();   double calories = weight \* 19 ;  System.out.println("Your weight of " + weight + " pounds. ");  System.out.println("You need " + calories + " calories per day. " );   } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q5.

Code:

|  |
| --- |
| ***public class Q5 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  System.out.println("Enter temperature in degrees Fahrenheit :");  double fahrenheit = input.nextDouble();   double celsius = ( 5.0 / 9.0 ) \* (fahrenheit - 32 );  System.out.println("Temperature in degrees Celsius : " + celsius);    } }*** |

A screen shot of a computer

AI-generated content may be incorrect.Output:

Q6.

Code:

|  |
| --- |
| ***package Q\_06;  import java.time.LocalDate; import java.util.Scanner;  public class Q6 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  int current\_year = LocalDate.now().getYear();  System.out.println("Enter your birth year :");  int birth\_year = input.nextInt();   int age = current\_year - birth\_year;  System.out.println("You were born in "+birth\_year+ " and will be " +age+***  ***" this year.");   } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q7.

Code:

|  |
| --- |
| ***package Q\_07;  import java.util.Scanner;  public class Q7 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  System.out.println("Enter your weight in kilograms :");  double w = input.nextDouble();   System.out.println("Enter your height in centimeters :");  double h = input.nextDouble();   double h1 = h/100;  double bmi = w / ( h1 \*h1 );   System.out.println("Your BMI is: "+bmi);  System.out.println("20 - 25 : Normal ");   } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q8.

Code:

|  |
| --- |
| ***package Q\_08;  import java.util.Scanner;  public class Q8 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);  System.out.println("Enter the radius of the sphere :");  double radius = input.nextDouble();   double volume = ( 4.0 / 3.0 ) \* (Math.PI \*(Math.pow(radius, 3)));  System.out.println("The volume of the sphere is : "+volume);   } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q9.

Code:

|  |
| --- |
| ***package Q\_09;  import java.util.Scanner;  public class Q9 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);   System.out.println("Enter amount in dollars :");  double P = input.nextDouble();   System.out.println("Enter annual interest rate in percent :");  double R = input.nextDouble();   System.out.println("Enter number of years :");  int N = input.nextInt();   double Amount = P \* Math.pow( 1 + (R / 100) , N);  System.out.println("Amount of money earned after " + N + " years :"***  ***+ Amount );    } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

Q10.

Code:

|  |
| --- |
| ***package Q\_10;  import java.util.Scanner;  public class Q10 {  public static void main(String[] args)  {  Scanner input = new Scanner(System.in);   System.out.println("Enter amount in dollars :");  float loan\_amount = input.nextFloat();    System.out.println("Enter annual interest rate :");  double annual\_interest\_rate = input.nextDouble();    System.out.println("Enter loan period :");  int loan\_period = input.nextInt();   double monthly\_interest\_rate = annual\_interest\_rate/ 100.0 /12;  int number\_of\_Payment = loan\_period \* 12 ;  double monthly\_payment = (loan\_amount \* monthly\_interest\_rate) /***  ***(1- Math.pow(1/(1+ monthly\_interest\_rate),number\_of\_Payment));  double total\_payment = monthly\_payment \* number\_of\_Payment;   System.out.println("------ Loan Summary ------");  System.out.println("Monthly Interest Rate :" +monthly\_interest\_rate);  System.out.println("Number Of Payment :" +number\_of\_Payment);  System.out.println("Monthly Payment :" +monthly\_payment);  System.out.println("Total Payment :" +total\_payment);   } }*** |

A screenshot of a computer program

AI-generated content may be incorrect.Output:

----------------------------CT/2021/059-----------------------------