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COURSE: CMP 202

DEPARTMENT: COMPUTER SCIENCE

MATRIC: BHU/18/04/05/0001

1. JAVA CLASS FOR SOL VING AREA OF A SQUARE

import java.util.Scanner;

class SquareAreaDemo {

public static void main (String[] args)

{

System.out.println("Enter Side of Square:");

//Capture the user's input

Scanner scanner = new Scanner(System.in);

//Storing the captured value in a variable

double side = scanner.nextDouble();

//Area of Square = side\*side

double area = side\*side;

System.out.println("Area of Square is: "+area);

}

}

1. JAVA CLASS FOR SOLVING AREA OF A RECTANGLE

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18 | import java.util.Scanner;  class AreaOfRectangle  {     public static void main(String args[])      {          Scanner s= new Scanner(System.in);             System.out.println("Enter the length:");           double l= s.nextDouble();          System.out.println("Enter the breadth:");           double b= s.nextDouble();                double  area=l\*b;        System.out.println("Area of Rectangle is: " + area);     }  } |

3.JAVA CLASS FOR SOLVING AREA OF A TRIANGLE

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28 | import java.util.Scanner;      class Xyz  {     public static void main(String args[])      {          Scanner s= new Scanner(System.in);             System.out.println("Enter the width of the Triangle:");           double b= s.nextDouble();             System.out.println("Enter the height of the Triangle:");            double h= s.nextDouble();              double area=AOT(b,h);        System.out.println("Area of Triangle is: " + area);     }     static double AOT(double b,double h)  {      return ((b\*h)/2);      }    } |

1. JAVA CLASS FOR SOLVING AREA OF TRAPEZOID

// Java Program to find Area Of Trapezoid

package Area;

import java.util.Scanner;

public class AreaOfTrapezoid {

private static Scanner sc;

public static void main(String[] args) {

double base1, base2, height, Area, Median;

sc = new Scanner(System.in);

System.out.println(" Please Enter First Base of a Trapezoid = ");

base1 = sc.nextDouble();

System.out.println(" Please Enter Second Base of a Trapezoid = ");

base2 = sc.nextDouble();

System.out.println(" Please Enter the Height of a Trapezoid = ");

height = sc.nextDouble();

Area = 0.5 \* (base1 + base2) \* height;

Median = 0.5 \* (base1+ base2);

System.out.format("\n The Area of a Trapezoid = %.2f\n",Area);

System.out.format(" The Median of a trapezium = %.2f \n", Median);

}

}

1. JAVA CLASS THAT SOLVES AREA OF A CIRCLE

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23 | import java.util.\*;  interface AreaCal  {  void circle();  }  class AreaOfCircle implements AreaCal  {  double area;  public void circle(double r)  {  area= (22\*r\*r)/7;  }     public static void main(String args[])      {        AreaOfCircle x;        Scanner s= new Scanner(System.in);        System.out.println("Enter the radius:");        double rad= s.nextDouble();        x=new AreaOfCircle();        x.circle(rad);        System.out.println("Area of Circle is: " + x.area);     }  } |

1. JAVA CLASS THAT SOLVES CIRCUMFERENCE OF A CIRCLE

import java.util.Scanner;

class CircleDemo

{

static Scanner sc = new Scanner(System.in);

public static void main(String args[])

{

System.out.print("Enter the radius: ");

/\*We are storing the entered radius in double

\* because a user can enter radius in decimals

\*/

double radius = sc.nextDouble();

//Area = PI\*radius\*radius

double area = Math.PI \* (radius \* radius);

System.out.println("The area of circle is: " + area);

//Circumference = 2\*PI\*radius

double circumference= Math.PI \* 2\*radius;

System.out.println( "The circumference of the circle is:"+circumference) ;

}

}

1. JAVA CLASS THAT SOLVES THE SURFACE AREA OF A CUBE

// Java Program to find Volume and Surface Area of Cube

package SurfaceAreaPrograms;

import java.util.Scanner;

public class VolumeOfCube {

private static Scanner sc;

public static void main(String[] args) {

// LSA = Lateral Surface Area of a Cube, SA = Surface Area

float length, SA,Volume, LSA;

sc = new Scanner(System.in);

System.out.println("\n Please Enter the Length of any side of a Cube : ");

length = sc.nextFloat();

SA = 6 \* (length \* length);

Volume = length \* length \* length;

LSA = 4 \* (length \* length);

System.out.format("\n The Surface area of a Cube = %.2f", SA);

System.out.format("\n The Volume of a Cube = %.2f", Volume);

System.out.format("\n The Lateral Surface area of a Cube = %.2f", LSA);

}

}

1. JAVA CLASS THAT SOLVES CURVED AREA OF CYLINDER
2. package com.hubberspot.mensuration.example;
3. import java.util.Scanner;
4. public class Cylinder {
5. public static void main(String[] args) {
6. Scanner input = new Scanner(System.in);
7. double radius = 0;
8. double height = 0;
9. double volume = 0;
10. double curvedSurfaceArea = 0;
11. double totalSurfaceArea = 0;
12. System.out.print("Enter the radius of base of Cylinder : ");
13. radius = input.nextDouble();
15. System.out.print("Enter the height of Cylinder : ");
16. height = input.nextDouble();
17. volume = (Math.PI \* radius \* radius \* height);
18. curvedSurfaceArea = 2 \* (Math.PI \* radius \* height);
19. totalSurfaceArea = 2 \* Math.PI \* radius \* (radius + height);
21. System.out.println("");
22. System.out.println("The Volume of Cylinder is : " + volume);
23. System.out.println("The Curved Surface Area of Cylinder is : "
24. + curvedSurfaceArea);
25. System.out.println("The Total Surface Area of Cylinder is : "
26. + totalSurfaceArea);
27. }
28. }

9. JAVA CLASS TO SOLVE TOTAL SURFACE AREA OF CYLINDER

 - 1

Java

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26 | import java.util.Scanner;  class TotalSurfaceAreaOfCylinder  {     public static void main(String args[])     {               Scanner s= new Scanner(System.in);             System.out.println("Enter the radius:");           double r=s.nextDouble();    System.out.println("Enter the height:");    double h=s.nextDouble();                 double  tsa=((2\*22\*r)/7)\*(r+h);                 System.out.println("TotalSurfaceArea Of Cylinder is:  " + tsa);           }  } |

10. JAVA CLASS TO SOLVE THE VOLUME OF A CYLINDER

   public static void main(String args[])

    {

      Scanner s= new Scanner(System.in);

         System.out.println("Enter the radius:");

         double r=s.nextDouble();

         System.out.println("Enter the height:");

         double h=s.nextDouble();

            double  volume=((22\*r\*r\*h)/7);

            System.out.println("volume of Cylinder is: " +volume);

   }

}

11. JAVA CLASS THAT SOLVES ACCELERATION

import java.util.Scanner;

public class DrivingSimulation {

public static void main(String[] args) {

int yearModel = 0;

String make = null;

int speed;

Scanner keyboard = new Scanner(System.in);

Car car = new Car(yearModel, make);

System.out.println("What is the year of the car?");

yearModel = keyboard.nextInt();

System.out.println("What is the make of the car?");

keyboard.nextLine(); // fixes bug - receives the Enter key without skipping make = keyboard.nextLine()

make = keyboard.nextLine();

System.out.println("What speed is the initial speed of the car?");

speed = keyboard.nextInt();

car.setSpeed(speed);

for (int i = 0; i < 5; i ++) {

car.accelerate();

System.out.println("Your " + yearModel + " " + make +

" is traveling at " + car.getSpeed() + " MPH.");

}

}

}