1. public abstract class BankAccount {

private String accountNumber;

private double balance;

public BankAccount(String accountNumber, double balance) {

this.accountNumber = accountNumber;

this.balance = balance;

}

public String getAccountNumber() {

System.out.println(“Account number is :” +accountNumber);

}

this.accountNumber = accountNumber;

}

// Getter and Setter for balance

public double getBalance() {

System.out.println(‘’Balance is :’’+balance);

}

public void setBalance(double balance) {

this.balance = balance;

}

public abstract double calculateInterest();

}

public class SavingsAccount extends BankAccount {

private static final double SAVINGSINTERESTRATE = 0.12;

public SavingsAccount(String accountNumber, double balance) {

super(accountNumber, balance);

}

@Override

public double calculateInterest() {

System.out.println( "Calculated interest is:"+getBalance() \* SAVINGSINTERESTRATE);

}

}

public class CheckingAccount extends BankAccount {

private static final double CHECKINGINTERESTRATE = 0.02;

public CheckingAccount(String accountNumber, double balance) {

super(accountNumber, balance);

}

@Override

public double calculateInterest() {

System.out.println("Calculate interest is:"+getBalance() \* CHECKINGINTERESTRATE;

}

}

public interface Shape {

double calculateArea();

double calculateperimeter();

}

public class Circle implements Shape {

private double radius;

public Circle(double radius) {

this.radius = radius;

}

public double getRadius() {

return radius;

}

public void setRadius(double radius) {

this.radius = radius;

}

@Override

public double calculateArea() {

return 22/7 \* radius \* radius;

}

@Override

public double calculatePerimeter() {

return 2 \* 22/7 \* radius;

}

}

public class Rectangle implements Shape {

private double length;

private double width;

public Rectangle(double length, double width) {

this.length = length;

this.width = width;

}

public double getLength() {

return length;

}

public void setLength(double length) {

this.length = length;

}

public double getWidth() {

return width;

}

public void setWidth(double width) {

this.width = width;

}

@Override

public double calculateArea() {

return length \* width;

}

@Override

public double calculatePerimeter() {

return 2 \* (length + width);

}

}

public class Triangle implements Shape {

private double side1;

private double side2;

private double side3;

public Triangle(double side1, double side2, double side3) {

this.side1 = side1;

this.side2 = side2;

this.side3 = side3;

}

public double getSide1() {

return side1;

}

public void setSide1(double side1) {

this.side1 = side1;

}

public double getSide2() {

return side2;

}

public void setSide2(double side2) {

this.side2 = side2;

}

public double getSide3() {

return side3;

}

public void setSide3(double side3) {

this.side3 = side3;

}

@Override

public double calculateArea() {

double s = (side1 + side2 + side3) / 2;

return Math.sqrt(s \* (s - side1) \* (s - side2) \* (s - side3));

}

@Override

public double calculatePerimeter() {

return side1 + side2 + side3;

}

}