**Exercise No:1**

package Shapes;

class Square {

    public void draw() {

        System.*out*.println("Drawing a Square");

    }

}

class Triangle {

    public void draw() {

        System.*out*.println("Drawing a Triangle ");

    }

}

class Circle {

    public void draw() {

        System.*out*.println(" Drawing a Circle ");

    }

}

public class TestShapes {

    public static void main(String[] args) {

        Square square = new Square();

        Triangle triangle = new Triangle();

        Circle circle = new Circle();

        square.draw();

        triangle.draw();

        circle.draw();

    }

}

**Exercise No:2**

package Shapes;

class Shapes {

    public double area(double side) {

        return side \* side; // Square

    }

    public double area(double length, double breadth) {

        return length \* breadth; // Rectangle

    }

    public double perimeter(double side) {

        return 4 \* side; // Square

    }

    public double perimeter(double length, double breadth) {

        return 2 \* (length + breadth); // Rectangle

    }

}

public class TestShapes1 {

    public static void main(String[] args) {

        Shapes shapes = new Shapes();

        System.*out*.println("Area of square: " + shapes.area(5));

        System.*out*.println("Area of rectangle: " + shapes.area(5, 10));

        System.*out*.println("Perimeter of square: " + shapes.perimeter(5));

        System.*out*.println("Perimeter of rectangle: " + shapes.perimeter(5, 10));

    }

}

*Exercise No:3*

package Shapes;

class Calculator {

    public int add(int a, int b) {

        return a + b;

    }

    public double add(double a, double b) {

        return a + b;

    }

    public double add(int a, double b) {

        return a + b;

    }

    public double add(double a, int b) {

        return a + b;

    }

}

public class TestCalculator {

    public static void main(String[] args) {

        Calculator calc = new Calculator();

        System.*out*.println("Addition of int: " + calc.add(5, 10));

        System.*out*.println("Addition of double: " + calc.add(5.5, 10.5));

        System.*out*.println("Addition of int and double: " + calc.add(5, 10.5));

        System.*out*.println("Addition of double and int: " + calc.add(5.5, 10));

    }

}

**Exercise No:4**

package Shapes;

class Vehicle {

    public void drive() {

        System.*out*.println("Vehicle is driving.");

    }

}

class Truck extends Vehicle {

    public void loadCargo() {

        System.*out*.println("Truck is loading cargo.");

    }

}

class Bus extends Vehicle {

    public void pickPassengers() {

        System.*out*.println("Bus is picking up passengers.");

    }

}

class Car extends Vehicle {

    public void openTrunk() {

        System.*out*.println("Car trunk is open.");

    }

}

public class Road {

    public static void main(String[] args) {

        Truck truck = new Truck();

        Bus bus = new Bus();

        Car car = new Car();

        truck.drive();

        truck.loadCargo();

        bus.drive();

        bus.pickPassengers();

        car.drive();

        car.openTrunk();

    }

}