package com.muthu.day 25;

interface ShapePlan {

void display();

void area();

void perimeter();

}

abstract class Shape implements ShapePlan {

public void display() {

System.out.println();

}

public abstract void area();

public abstract void perimeter();

}

class Circle extends Shape {

float R;

Circle(float R) {

this.R = R;

}

public void area() {

System.out.println(" Area of Circle : " +(3.14\*R\*R));

}

public void perimeter() {

System.out.println(" Perimeter of Circle : " +(2\*3.14\*R));

}

}

class Square extends Shape {

int side;

Square(int side){

this.side=side;

}

public void area() {

System.out.println(" Area of Square : " +(side\*side));

}

public void perimeter() {

System.out.println(" Perimeter of Square : " +(4\*side));

}

}

class Rectangle extends Shape {

int Length, Breadth;

Rectangle(int Length, int Breadth) {

this.Length = Length;

this.Breadth = Breadth;

}

public void area() {

System.out.println(" Area of Rectangle : " +(Length\*Breadth));

}

public void perimeter() {

System.out.println(" Perimeter of Rectangle : " +(2\*(Length\*Breadth)));

}

}

class Triangle extends Shape {

float Length1, Length2, Base;

Triangle (float Length1, float Length2, float Base) {

this.Length 1 = Length1;

this.Length2 = Length2;

this.Base = Base;

}

public void area() {

System.out.println(" Area of Triangle : " +(0.5\*Length1\*Length2\*Base));

}

public void perimeter() {

System.out.println(" Perimeter of Triangle : " +(Length1+Length2+Base));

}

}

public class ProblemSolvingShapes {

public static void main(String[] args) {

Circle cir = new Circle(5.0f);

cir.area();

cir.perimeter();

Square sq = new Square(4);

sq.area();

sq.perimeter();

Rectangle rect = new Rectangle(6, 4);

rect.area();

rect.perimeter();

Triangle tri = new Triangle(6.0f,5.0f, 40.f);

tri.area();

tri.perimeter();

}

}

ProblemSolving\_Shapes.java

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