Develop a Java program to create an abstract class named Shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea() that prints the area of the given shape.

```java
abstract class Shape {

    int dim1 , dim2;

    Shape(int a,int b)

    {

        this.dim1=a;

        this.dim2=b;


    }

     abstract void printArea();

}
class Rectangle extends Shape {

    Rectangle(int l,int b){

        super(l,b);

    }

    void printArea()

    {

        System.out.println("The area of rectangle:" +dim1*dim2);

    }

}
class Triangle extends Shape {
```

```java
    Triangle(int a, int b){

        super(a,b);

    }

    void printArea(){


        System.out.println("the area of trinagle" +0.5*dim1*dim2);

    }

}

class Circle extends Shape {

    Circle(int r){

        super(r,0);

    }

    void printArea(){


        System.out.println("the area of circle" +3.142*dim1);

    }

}

public class program4 {

    public static void main(String[] args) {

        Rectangle r =new Rectangle(2,4);

        Triangle t = new Triangle(5,3);

        Circle c = new Circle(3);

        r.printArea();

        t.printArea();
```
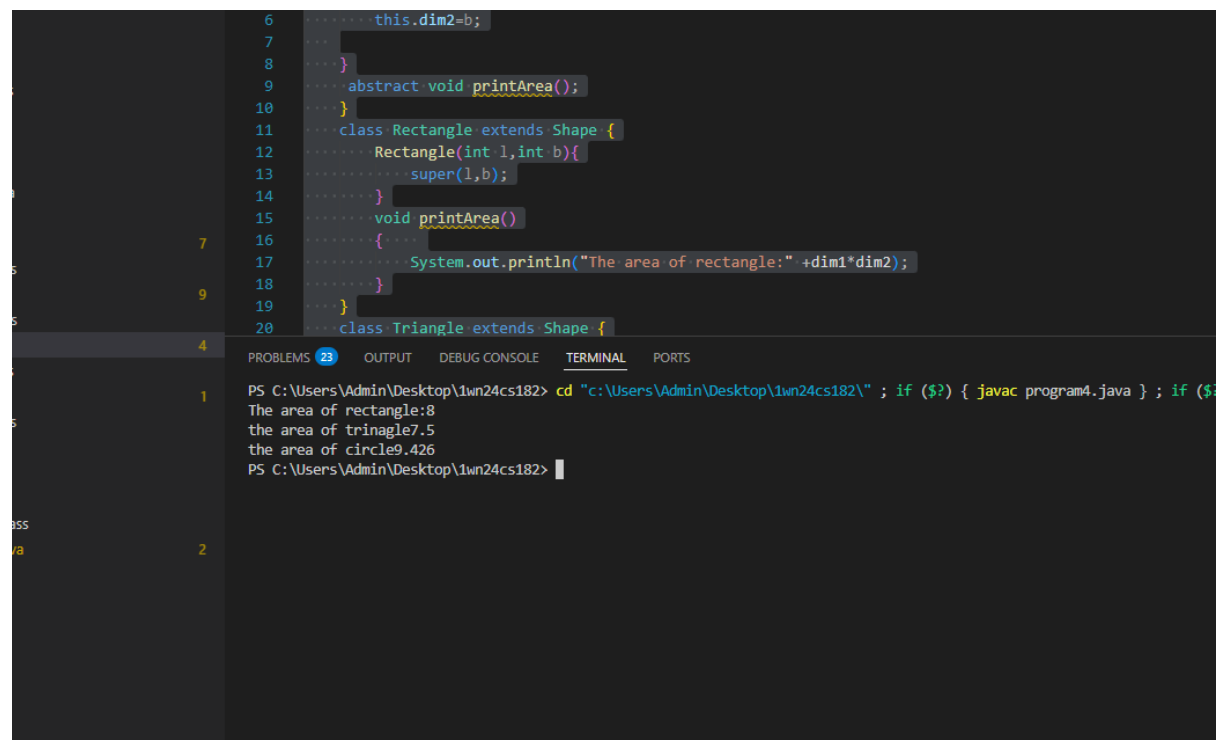
```
        c.printArea();

    }



}
```

OUTPUT: