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(4) 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.
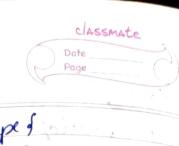
```java
import java.util.Scanner();

class Inputscanner(){
    Scanner s;
    s = new Scanner (System.io);
}   input Scanner()
    {
        s = new Scanner (System.in);
    }
}

abstract class Shape extends inputscanner{
    double a;
    double b;
    abstract void get Input ();
    abstract void display Area ();
}
```
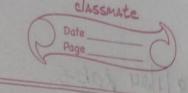
```
class rectangle extends Shape {
    public void getInput() {
        System.out.println("Enter the details");
        a = s.nextInt();
        b = s.nextInt();
    }

    public void displayArea {
        System.out.println("Area is : " + a*b);
    }
}

class triangle extends Shape {
    public void getInput() {
        System.out.println("Enter details?");
        a = s.nextInt();
        b = s.nextInt();
    }
    public void DisplayArea {
        System.out.println("Area is:" + 0.5*a*b);
    }
}

class circle extends circle {
    public void getInput() {
        System.out.println("Enter details·.");
        a = s.nextInt();
    }

    public void DisplayArea {
        System.out.println("Area is" + 3.14*a*a);
    }
}
```

```
public class Mainshape{

    public static void main (String args[]){

        rectangle r = new rectangle();
        triangle t = new triangle();
        circle   c = new circle();
        r. get Input();
        r. display Area();
        t. get input();
        t. display Area();
        c. getInput();
        c. display Area();
    }
}
```

Output:

Enter details:
2
4
Area is 8
Enter details? 2
2
Area is 2
Enter details? 1
Area is 3.14;

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