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4) Develop a java program to creak 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 print the area of

```java
import java.util.Scanner;

class InputScanner{

    Scanner s;

    InputScanner(){
        s = new Scanner(System.in);
    }

}


class
abstract class Shape extends InputScanner{

    int a;
    int b;
    abstract void display();

}

class Rectangle extends Shape {

    Rectangle(){
        System.out.println("Enter the dimensions
            of Rectangle (length and breadth): ");
```

```java
        a = s.nextInt();
        b = s.nextInt();
    }
    Void display() {
        System.out.println("Area of Rectangle = "+ a*b);
    }
}

class Triangle extends Shape {
    Triangle() {
        System.out.println("Enter the dimensions
             of Triangle (base and height): ");
        a = s.nextInt();
        b = s.nextInt();
    }

    void display() {
        System.out.println("Area of Triangle ="+ a*b/2);
    }
}

class Circle extends Shape {
    Circle() {
        System.out.println("Enter the dimension
             of Circle (radius): ");
        a = s.nextInt();
    }

    void display() {
        System.out.println("Area of Circle ="+ 3.14*a*a);
    }
}
```

```
class abstractClass-Main{
    public static void main(String args[]){
        Rectangle r = new Rectangle();
        Triangle t = new Triangle();
        Circle c = new Circle();
        r.display();
        t.display();
        c.display();
    }
}
```

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output:-

Enter the dimensions of Rectangle (length and breadth):

2 3

Enter the dimensions of Circle (radius):

2—4

Enter the dimensions of Triangle (base and height):

2 4

Enter the dimension of circle (radius):

3

Area of Rectangle = 6

Area of Triangle = 4

Area of circle = 28.2771