

3. write a java program to create a class called shape with methods called getperimeter() and getarea() craete a subclass called circle that overrides the getperimeter and get area() methods ti calculate the area and perimeter of a class

PROGRAM:

```
abstract class Shape {  
    public abstract double getPerimeter();  
    public abstract double getArea();  
}
```

```
class Circle extends Shape {
```

```
    private double radius;
```

```
    public Circle(double radius) {  
        this.radius = radius;  
    }
```

```
    @Override
```

```
    public double getPerimeter() {  
        return 2 * Math.PI * radius;  
    }
```

```
    @Override
```

```
    public double getArea() {  
        return Math.PI * radius * radius;  
    }
```

```
}
```

```
public class Main {
```

```
    public static void main(String[] args) {
```

```
        Circle circle = new Circle(5); // Create a circle with radius 5
```

```
        System.out.println("Circle with radius 5:");
```

```
        System.out.println("Perimeter: " + circle.getPerimeter());  
        System.out.println("Area: " + circle.getArea());  
    }  
}
```

OUTPUT:

```
Circle with radius 5:  
Perimeter: 31.41592653589793  
Area: 78.53981633974483
```