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 extend class shape. Each of the shape contain only the method printArea that prints the area of the given shape

```java
import java.util.*;

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

abstract class Shape extends InputScanner
{
    double a;
    double b;
    abstract void getInput();
    abstract void displayArea();
}

class Rectangle extends Shape
{
    void getInput()
    {
        System.out.println("Enter the length and breadth:");
        a = sc.nextDouble();
        b = sc.nextDouble();
    }
}
```

```java
        void  displayArea()
        {
                System.out.println("Area of rectangle is :"+(a*b));
        }
}

class   Triangle extends Shape
{
        void  getInput()
        {
                System.out.println("Enter length and height :");
                a = sc.nextDouble();
                b = sc.nextDouble();
        }
        void  displayArea()
        {
                System.out.print("Area of triangle is : "+(a*b*0.5));
        }
}
class   Circle extends Shape
{
        void  getInput()
        {
                System.out.println("Enter the radius :");
                a = sc.nextDouble();
        }
        void  displayArea()
        {
                System.out.println("Area of circle : "+(a*a*3.14));
        }
}
```

```
class ShapeMain
{
        public static void main (String [] args)
        {
                Rectangle r = new Rectangle();
                Triangle  t = new Triangle();
                Circle    c = new Circle();
                r.get Input();
                r. displayArea();
                t.get Input();
                t.displayArea();
                c.getInput();
                c.displayArea();
        }
}
```

Output:

Enter the length and breadth:
10
5

Area of rectangle is : 50.0
Enter the length and height:
10
4

Area of ~~rectangle~~ triangle is : 20.0
Enter the radius:
5

Area of circle : 78.5

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