

Java Lab Program 4

Code:

```
import java.util.*;
import java.lang.*;

abstract class Shape {
    Scanner in = new Scanner(System.in);
    int a1, a2;
    Shape() {
        System.out.println("Input 2 integer values: ");
        a1 = in.nextInt();
        a2 = in.nextInt();
    }
    abstract void printArea();
}

class Rectangle extends Shape {
    void printArea() {
        System.out.println("Rectangle : " + a1*a2);
    }
}

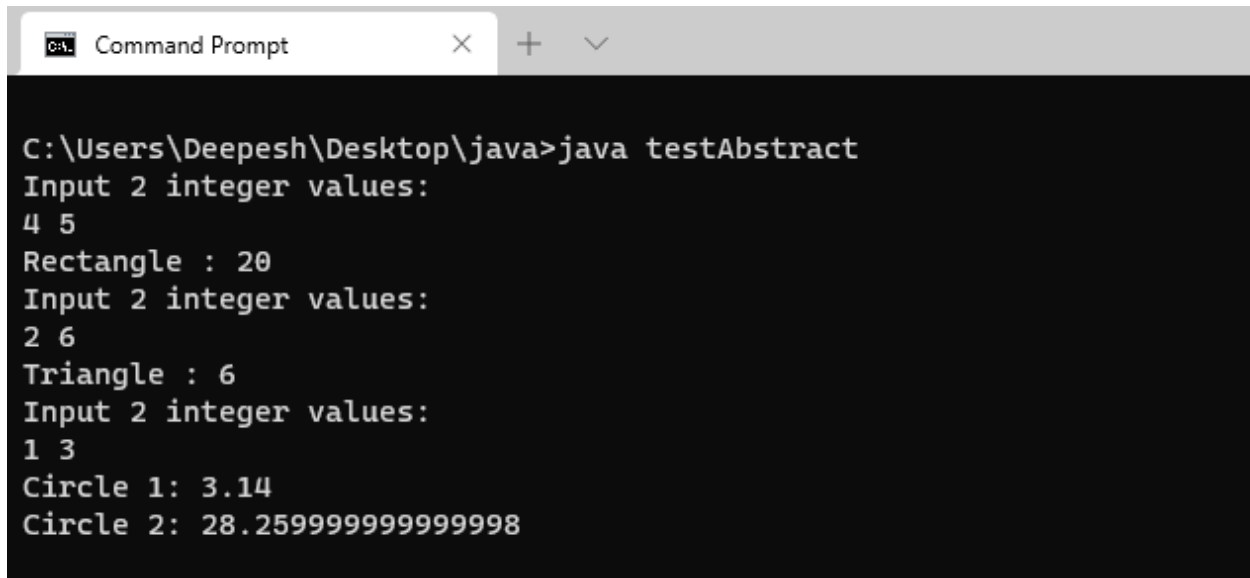
class Triangle extends Shape {
```

```
void printArea() {  
    System.out.println("Triangle : " + (a1*a2)/2);  
}  
}
```

```
class Circle extends Shape {  
    void printArea() {  
        System.out.println("Circle 1: " + (3.14 * a1 * a1));  
        System.out.println("Circle 2: " + (3.14 * a2 * a2));  
    }  
}
```

```
class testAbstract {  
    public static void main(String[] args) {  
        Shape s;  
  
        s = new Rectangle();  
        s.printArea();  
  
        s = new Triangle();  
        s.printArea();  
  
        s = new Circle();  
        s.printArea();  
    }  
}
```

Output:



```
C:\Users\Deepesh\Desktop\java>java testAbstract
Input 2 integer values:
4 5
Rectangle : 20
Input 2 integer values:
2 6
Triangle : 6
Input 2 integer values:
1 3
Circle 1: 3.14
Circle 2: 28.259999999999998
```