

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.

```
import java.util.Scanner;
abstract class Shape
{
    int x, y;
    double area;
    abstract void printArea();
}

class Rectangle extends Shape
{
    void printArea()
    {
        area = x * y;
        System.out.println("Area of rectangle is: " + area);
    }
}

class Triangle extends Shape
{
    void printArea()
    {
        area = 0.5 * x * y;
        System.out.println("Area of triangle is: " + area);
    }
}
```



```
C:\Users\dhru2\OneDrive\Desktop\1BM21CS057>javac Area.java

C:\Users\dhru2\OneDrive\Desktop\1BM21CS057>java Area
Enter the shape whose area is to be found out: rectangle
Enter length:
3
Enter breadth:
4
Area of rectangle is: 12.0
Enter the shape whose area is to be found out: triangle
Enter height:
4
Enter breadth:
5
Area of triangle is: 10.0
Enter the shape whose area is to be found out: circle
Enter radius:
4
Area of circle is: 50.24

C:\Users\dhru2\OneDrive\Desktop\1BM21CS057>_
```