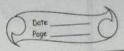
4)Develop a Java program to create an abstract class named Shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea() that prints the area of the given shape.

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4)	perelop a java prog to create an abstrat
_	class shape having two rastables and an
	empty method printareal) provide three
	Classes name triangle greatangle circle which
	extends shape, pa: ** Aria()
	import java-util Scannes
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	intw;
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	Enter Codity for Subject 12 P
	class triangle extend shapes
	System out paint in ("area" + r+w/2)
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	Class nectangle extends shape 1
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	Subject of the district of gentless of
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	System-out-printin 1 "Area of circle is" + MAH: PLATAN
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Public Class Mainshaped  public Static void main(String args[])?  Scanner sx = new Scanner Csystemin):  +rangle +1= new triangle();  System out println ("Enter sides of triangle");  +1. printaged "  +1. printage "1 = new redargle();  Rytem out println ("Enter sides of redargle");  retargle "1 = new redargle();  Y1. printageal):  Y1. printageal):  Crede C1 = new circle(");  System out println("Enter radius");  Cress next [at();  Cress next [at();  Cress next [at();  Sx. close();  1  Enter Sides of triangle  3  Area of rect is 12  Enter radius of circle  3  Area of circle is 25.2529		
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Cl. perintareal?  SX. close(1);  1  Ente Sides of triangle 3 4  area 6  Enter Sides of ectangle  Orea of rect is12  Enter radius of circle 3  Area of circle is 28.2599		
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area of reet is 12  Enter radius of circle  3  Area of circle is 28.2599	-	
Enter Sides of rectangle  area of rect is 12  Enter radius of circle  3  Area of circle is 28.2599	-	
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import java.util.Scanner;
abstract class Shape{
  int r; int w;
  abstract void printarea();
}
class triangle extends Shape {
  void printarea(){
    System.out.println("AREA OF TRIANGLE ="+ r*w/2);
  }}
class rectangle extends Shape {
void printarea(){
  System.out.println("AREA OF RECTANGLE =" + r*w);
}}
class circle extends Shape {
  void printarea(){
    System.out.println("AREA OF CIRCLE IS = "+ 3.14*r*r);
  }
}
public class mainshape{
  public static void main(String args[]){
    Scanner sx=new Scanner(System.in);
    triangle t1= new triangle();
    System.out.println("ENTER HEIGHT AND BASE OF TRIANGLE");
    t1.r=sx.nextInt(); t1.w=sx.nextInt();
    t1.printarea();
```

```
rectangle r1=new rectangle();
    System.out.println("ENTER SIDES OF RECTANGLE IE LENGTH BREADTH");
    r1.r=sx.nextInt(); r1.w=sx.nextInt();
    r1.printarea();
    circle c1=new circle();
    System.out.println("ENTER RADIUS OF CIRCLE");
    c1.r=sx.nextInt(); //r1.w=sx.nextInt();
    c1.printarea();
    sx.close();
  }
}
output
C:\Users\hp\Desktop\java>javac mainshape.java
C:\Users\hp\Desktop\java>java mainshape
ENTER HEIGHT AND BASE OF TRIANGLE
AREA OF TRIANGLE =6
ENTER SIDES OF RECTANGLE IE LENGTH BREADTH
AREA OF RECTANGLE =12
ENTER RADIUS OF CIRCLE
```

AREA OF CIRCLE IS = 50.24

C:\Users\hp\Desktop\java>