```
import java.util.Scanner;

abstract class Shape
{
int a;
int b;
Shape (int a, int b)
 {
  this.a=a;
  this.b=bb;
 }

 Shape (int a)
 {  this.a=a; }

 Shape () {
    this.a=0;
    this.b=0; }

void printArea ()
  {
  }
  }
  class triangle extends Shape {
  triangle(int a, int b)
     {
        super(a,b); }
  void printArea()
  {  Sout ("The area of is "+(a*b)/2);
    }
    }
  class rectangle extends Shape {
    rectangle (int a, int b)
```

```
{ super(a,b); }

void printArea()
{ Sout("The are of rect is =" + (a*b));
  }
  }

class circle extends Shape {
   circle(int a) {
       super(a); }

void printArea()
{ sout("Areal of circle is = " + (3.14 * a * a));
  }
  }

class Shapes{
   public static void main(String args[])
{
Scanner scan = new Scanner(System.in);
int ch,b;
while(true){
     Sout(" Enter 1 for triangle ");
     sout(" Enter 2 for Rectangle ");
                3 -- circle
                4 -- Exit.
ch = scan.nextInt();

switch(ch)
{
case 1: System.out.println("Enter b,h of triang");
```

```
a = scan.nextInt();
b = scan.nextInt();
triangle t = new triangle(a,b);
t.printArea();
break;

case 2: System.out.println("Enter l,b of rectangle");
    a = scan.nextInt();
    b = scan.nextInt();
    rectangle r = new rectangle(a,b);
    r.printArea();
    break;

case 3: System.out.println("Enter radius of circle");
    a = scan.nextInt();
    Circle c = new circle(a);
    c.printArea();
    break;

case 4: scan.close();
    break;

default: System.out.println("Invalid input");
}
}
}
```