```java
import java.util.*;

abstract class Shape {
    abstract void printArea();
    int x, y;
    Shape (int m, int n) {
        x = m;
        y = n;
    }
}

class Rectangle extends Shape {
    Rectangle (int p, int q) {
        super (p, q);
    }
    void printArea() {
        System.out.println ("Area = "+(x*y));
    }
}

class Triangle extends Shape {
    Triangle (int p, int q) {
        super (p, q);
    }
    void printArea() {
        System.out.println ("Area = "+ (x*y/2));
    }
}
```

```java
class Circle extends Shape {
    Circle (int p) {
        super (p, 0);
    }
    void printArea () {
        System.out.println ("Area = " + (((float)x*x
                                          * 3.142)));
    }
}

class Test {
    public static void main (String args []) {
        Scanner in = new Scanner (System.in);
        Shape sp;
        System.out.println (" Enter length &
                             breadth");
        int m = in.nextInt();
        int n = in.nextInt();
        Rectangle System Triangle t = new Triangle (m, n);
        Sys sp = t;
        sp.printArea();
        System.out.println ("Enter height & base");
        int m = in.nextInt();
        n = in.nextInt();
        Triangle r = new Triangle (m, n);
        sp = r;
        sp.printArea();
```

```
System.out.println ("Enter radius");
m = in.nextInt();
Circle c = in.next new Circle(m);
sp = c;
    sp.printArea();
  }
}
```