import java.util.\*;

// Abstract class Shape

abstract class Shape {

int a, b;

abstract void printArea();

}

// Rectangle class

class Rectangle extends Shape {

Rectangle(int x, int y) {

a = x;

b = y;

}

void printArea() {

System.out.println("AREA OF RECTANGLE: " + (a \* b));

}

}

// Triangle class

class Triangle extends Shape {

Triangle(int x, int y) {

a = x;

b = y;

}

void printArea() {

System.out.println("AREA OF TRIANGLE: " + (0.5 \* a \* b));

}

}

// Circle class

class Circle extends Shape {

Circle(int r) {

a = r;

}

void printArea() {

System.out.println("AREA OF CIRCLE: " + (3.14 \* a \* a));

}

}

// Main class

public class ShapeCalc {

public static void main(String args[]) {

Scanner sc = new Scanner(System.in);

Shape s;

System.out.println("ENTER LENGTH AND BREADTH:");

int l = sc.nextInt();

int b = sc.nextInt();

s = new Rectangle(l, b);

s.printArea();

System.out.println("ENTER BASE AND HEIGHT:");

int base = sc.nextInt();

int h = sc.nextInt();

s = new Triangle(base, h);

s.printArea();

System.out.println("ENTER RADIUS:");

int r = sc.nextInt();

s = new Circle(r);

s.printArea();

sc.close();

}

}

Output:

ENTER LENGTH AND BREADTH:

10

5

AREA OF RECTANGLE: 50

ENTER BASE AND HEIGHT:

6

4

AREA OF TRIANGLE: 12.0

ENTER RADIUS:

7

AREA OF CIRCLE: 153.86