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import java.util.Scanner;

abstract class shape
{
    int d1, d2;
    abstract void printArea();
}

class rectangle extends shape
{
    void printArea()
    {
        System.out.println("In Area: " + (d1*d2));
    }
}

class triangle extends shape
{
    void printArea()
    {
        System.out.println("In Area: " + (d1*d2/2));
    }
}

class circle extends shape
{
    void printArea()
    {
        System.out.println("In Area: " + (3.14159*d1*d1));
    }
}

class ShapeMain
{
    public static void main(String args[])
    {
        int ch;
        triangle t = new triangle();
        rectangle r = new rectangle();
        circle c = new circle();
        System.out.println("1. Rectangle\n2. Triangle\n3. Circle");
        System.out.println("Enter the no of choice");
        ch = get.nextInt();
        switch (ch)
        {
            case 1: System.out.println("Enter height and width");
                    r.d1 = get.nextInt();
                    r.d2 = get.nextInt();
                    r.printArea();
                    break;
            case 2: System.out.println("Enter altitude and base:");
                    t.d1 = get.nextInt();
                    t.d2 = get.nextInt();
                    t.printArea();
                    break;
            case 3: System.out.println("Enter the radius:");
                    c.d1 = get.nextInt();
                    c.printArea();
                    break;
            default: System.out.println("Invalid Input");
        }
    }
}

```