

Create polygon which includes default getPerimeter() and abstract method getArea(). Calculate perimeter & area of all polygons. Any class implements polygon must provide implementation of getArea().

```
import java.util.*;
```

```
interface Polygon {
```

```
    public void getPerimeter();
```

```
    public abstract void getArea();
```

```
}
```

```
class Square implements Polygon {
```

```
    Scanner sc = new Scanner(System.in);
```

```
    public void getPerimeter() {
```

```
        System.out.println("Enter no. of sides");
```

```
        int n = sc.nextInt();
```

```
        int p = 0;
```

```
        for (int i = 0; i < n; i++)
```

```
            System.out.println("Enter side");
```

```
            int s = sc.nextInt();
```

```
            p += s;
```

```
}
```

```
        System.out.println("Perimeter: " + p);
```

```
}
```

```
    public void getArea() {
```

```
        System.out.println("Enter side length");
```

```
        int a = sc.nextInt();
```

```
        int area = a * a;
```

```
        System.out.println("Area: " + area);
```

y
y
class Triangle implements Polygon {

Scanner sc = new Scanner(System.in);

public void getPerimeter() {

System.out.println("Enter no. of sides");

int n = sc.nextInt();

for (int i = 0; i < n; i++)

System.out.println("Enter side: ");

int s = sc.nextInt();

p += s;

System.out.println("Perimeter: " + p);

y
y

public void getArea() {

System.out.println("Enter base and height");

int b = sc.nextInt();

int h = sc.nextInt();

double area = 0.5 * b * h;

System.out.println("Area: " + area);

y
y

public class Main {

public static void main (String args[])

Scanner sc = new Scanner(System.in);

Polygon sq = new Square();

sq. get Perimeter ();

sq. get area ();

Polygon t = new Triangle ();

t. get Perimeter ();

t. get area ();

y

y

Output

Enter no. of sides : 4

Enter side : 5

Perimeter : 20

Enter side length : 5

Area : 25

Enter no. of sides : 3

Enter side 3

Enter side 2

Enter side 1

Perimeter : 6

Enter base and height : 4 3

Area : 6

