

Prog-4

```
import java.util.Scanner;
abstract class shape
{
    int i1, i2;
    abstract void printarea();
}

class rectangle extends shape
{
    void printarea()
    {
        System.out.println("Area: " + (i1*i2));
    }
}

class triangle extends shape
{
    void printarea()
    {
        System.out.println("Area of Triangle: " + (i1*i2/2));
    }
}

class circle extends shape
{
    void printarea()
    {
        System.out.println("Area: " + (3.1415*i1*i2));
    }
}
```

```
class shapeMain
```

```
{
    public static void main (String[] args)
    {
        Scanner get = new Scanner(System.in);
        int choice;
        triangle t = new triangle();
        rectangle r = new rectangle();
        circle c = new circle();

        System.out.println("1.Rectangle\n2.Triangle\n3.Circle");
    }
}
```

```
System.out.printf ("Enter the choice: ");
```

```
choice = getNextInt();
```

```
switch (choice)
```

```
{
```

```
case 1:
```

```
System.out.printf ("Enter Height and width: ");
```

```
x.i1 = getNextInt(); x.i2 = getNextInt();
```

```
x.printarea();
```

```
break;
```

```
case 2: System.out.printf ("Enter altitude & base: ");
```

```
t.i1 = getNextInt(); t.i2 = getNextInt();
```

```
t.printarea();
```

```
break;
```

```
case 3:
```

```
System.out.printf ("Enter the radius: ");
```

```
c.i1 = getNextInt();
```

```
c.printarea();
```

```
break;
```

```
default: System.out.printf ("Input Error!",  
System.exit(0));
```

```
}
```

```
}
```

```
}
```