

3-11 import java.util.*;

abstract class Shape

{
 int dim1, dim2;

abstract void printArea();

Shape (int a, int b)

{
 dim1 = a;

dim2 = b;

}

}

class Rectangle extends Shape

{
 Rectangle (int a, int b)

{
 super (a, b); }

void printArea ()

{
 System.out.println ("Area of rectangle -
 " + (dim1 * dim2) + " sq. units");
 }

}

}

class Triangle extends Shape

{
 Triangle (int a, int b)

{
 super (a, b); }

void printArea ()

{
 System.out.println ("Area of triangle =
 + ((double) dim1 * dim2 / 2) + "
 sq. units");
 }

```
}  
class Circle extends Shape
```

```
{  
    Circle (int a, int b)
```

```
    {  
        super (a, b); }  
}
```

```
void printArea()
```

```
{  
    System.out.println ("The area of  
rectangle = " + area + " sq. units");  
}
```

```
}  
  
}
```

```
class ShapeMain
```

```
{
```

```
    public static void main (String args[])
```

```
    {  
        int a, b;
```

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

```
        System.out.println ("Enter the dimensions  
of rectangle");
```

```
        a = in.nextInt();
```

```
        b = in.nextInt(); Rectangle r = new Rectangle(a, b);
```

```
        System.out.println ("Enter the dim breadth of  
base and height of triangle");
```

```
        a = in.nextInt();
```

```
        b = in.nextInt();
```

```
        Triangle t = new Triangle (a, b);
```

```
        System.out.println ("Enter the radius of  
circle");
```

```
a = in.nextInt();
```

```
Circle c = new Circle(a, a);
```

```
x.printArea(); t.printArea(); c.printArea();
```

y

y.

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