

WORKSHEET A2.1

Objects and Classes

The following object declarations and initializations will be used for all questions. This code will create a `DrawingTool` object called *marker* and a `SketchPad` object called *poster*. The *poster* will have dimensions of 600 x 600, and the *marker* will be constructed to be used on the *poster*. Each drawing will begin at the center of the poster at the point (0,0).

```
DrawingTool marker;  
SketchPad poster;  
  
poster = new SketchPad(600,600);  
marker = new DrawingTool(poster);
```

1. On a piece of paper, draw the figure generated by the following code segment:

```
marker.drawCircle(50);  
marker.drawString("Small");  
marker.up();  
marker.move(0,120);  
marker.down();  
marker.drawCircle(70);  
marker.drawString("Big");
```

2. Enhance # 1 by writing code to draw a third circle labeled "Middle" that connects the centers of circles "Small" and "Big."
3. Enhance # 1 by writing code to draw three circles, each tangent to "Big." The first should be drawn to the immediate left of "Big" with a radius of 30 units and labeled "Left." The second should be drawn directly above "Big" with a radius of 40 units and labeled "Above." The third should be drawn to the immediate right of "Big" with a radius of 50 units and labeled "Right."