

Original Partner	Problem 4 COMP 10062	Paired Partner ("grader")	SCORE OBTAINED 5
SOLUTION		Student #	
Student #			

The SNOWMAN

```
import javafx.scene.paint.Color;
```

```
gc.setLineWidth(5); gc.strokeOval( x,y,width,height); gc.fillRect( x,y,width,height); gc.fillOval((x,y,width,height);
gc.strokeRect( x,y,width,height); gc.setFill(Color.web("white"));
```

The purpose of the exercise is to practice using the basic JavaFX drawing tools shown above. Be sure to try your solution out using the zip provided.

OB4. Complete the **Snowman** program below so that the product shot in figure 1 is realized EXACTLY. The canvas is 200 x 200. The base of the snowman is placed on the bottom and middle of the canvas.

You MAY NOT use the **Circle** class. Use the basic JavaFX drawing tools as shown above. Note that the x & y coordinates of the base oval represent the top left corner of an inscribed square. (see figure 2)

Specifications

- The base of the snowman has its centre at column 100 and row 150.
- The radius of the base of the snowman is 100.
- The other two circles have radii of 50 and 25.
- The border colour must be 5 pixels thick and DARKGRAY. The background colour is GRAY.
- The fill colour is WHITE inside the circles.

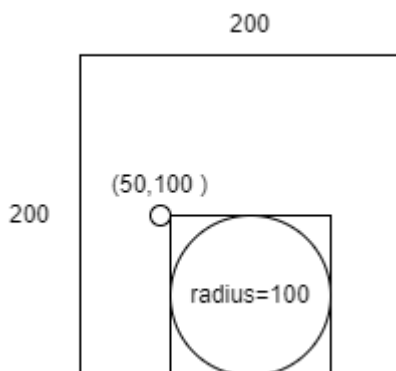


Figure 2. When making an oval using `fillOval()` or `strokeOval()` you must provide the top left corner of an inscribed square



Figure 1 Project Shot

```

import javafx.scene.paint.Color;
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.canvas.Canvas;
import javafx.scene.canvas.GraphicsContext;
import javafx.stage.Stage;
import static javafx.application.Application.launch;
//OB1 - The Snowman
/**
 * OB1 - The Snowman
 * This program draws a snowman.
 *
 * @author Dave Slemon
 */
public class The_Snowman extends Application {

    /**
     * Start method (use this instead of main).
     *
     * @param stage The FX stage to draw on
     * @throws Exception
     */
    @Override
    public void start(Stage stage) throws Exception {
        Group root = new Group();
        Scene scene = new Scene(root, 400, 300, Color.LIGHTBLUE);

        Canvas canvas = new Canvas(400, 300); // Set canvas Size in Pixels
        stage.setTitle("The Snowman"); // Set window title
        root.getChildren().add(canvas);
        stage.setScene(scene);
        GraphicsContext gc = canvas.getGraphicsContext2D();

        // YOUR CODE STARTS HERE

        //draw base
        Circle c = new Circle(100,Color.GRAY,200,250);
        c.draw(gc);

        //middle
        c.setRadius(70);
        c.setX(200);
        c.setY(200-35);
        c.draw(gc);

        //head
        c.setRadius(50);
        c.setX(200);
        c.setY(200-35-25);
        c.draw(gc);

        // YOUR CODE STOPS HERE
        stage.show();
    }

    public static void main(String[] args) {
        launch(args);
    }
}

```