1. How many bytes are needed to store a color picture that is 400 pixels wide and 100 pixels high? Assume color is represented using the RGB technique and that no special compression technique is used.

2. Two corners of a square drawn using the Java coordinate system have coordinates (10, 20) and (30, 40). What are the coordinates of the other two corners?

3. Assuming you have a Graphics object called page, write statements to do the following:
   a) Draw a line from point (10, 50) to point (20, 80)
   b) Draw a circle centered on point (20, 20) with a radius of 10 pixels
   c) Draw a square with side = 40 pixels at the top left corner of the page

4. Add appropriate numeric labels for the coordinate system below and then draw the graphics displayed by the applet; identify positions MID, TOP, and shapes R1, R2, O1, and O2.
import javax.swing.JApplet;
import java.awt.*;

public class Quiz4 extends JApplet {
    public void paint (Graphics page) {
        final int MID = 40; // MID
        final int TOP = 20; // TOP

        page.drawRect (0, 0, 200, 140); // R1
        page.drawOval (-20, 0, 40, 40); // O1
        page.drawRect (MID, TOP, 20, 40); // R2
        page.drawOval (MID+40, TOP+40, 30, 40); // O2
    }
}
1. How many bits are needed to store a color picture that is 300 pixels wide and 200 pixels high? Assume color is represented using the RGB technique and that no special compression technique is used.

2. Two corners of a square drawn using the Java coordinate system have coordinates (20,4) and (30, 10). What are the coordinates of the other two corners?

3. Assuming you have a Graphics object called `page`, write statements to do the following:
   
a) Draw a line from point (20,30) to point (40,60)

   b) Draw a circle centered on point (80,80) with a radius of 30 pixels

   c) Draw a square with side = 60 pixels at the top left corner of the page

4. Add appropriate numeric labels for the coordinate system below and then draw the graphics displayed by the applet; identify positions MID, TOP, and shapes R1, R2, O1, and O2.
import javax.swing.JApplet;
import java.awt.*;

public class Quiz4 extends JApplet {

    // Draws something...
    public void paint (Graphics page) {
        final int MID = 80; // MID
        final int TOP = 30; // TOP

        page.drawRect (0, 0, 100, 50); // R1
        page.drawOval (0, -30, 60, 60); // O1
        page.drawRect (MID, TOP, 20, 40); // R2
        page.drawOval (MID+50, TOP+50, 20, 10); // O2
    }
}
1. How many bytes are needed to store a color picture that is 300 pixels wide and 300 pixels high? Assume color is represented using the RGB technique and that no special compression technique is used.

2. Two corners of a square drawn using the Java coordinate system have coordinates (40, 10) and (80, 60). What are the coordinates of the other two corners?

3. Assuming you have a Graphics object called `page`, write statements to do the following:
   
a) Draw a line from point (20,40) to point (30,60)

   b) Draw a circle centered on point (60,60) with a radius of 40 pixels

   c) Draw a square with side = 75 pixels at the top left corner of the page

4. Add appropriate numeric labels for the coordinate system below and then draw the graphics displayed by the applet; identify positions MID, TOP, and shapes R1, R2, O1, and O2.
import javax.swing.JApplet;
import java.awt.*;

public class Quiz4 extends JApplet
{
    //--------------------------------------------------------------------------
    //  Draws something...
    //--------------------------------------------------------------------------
    public void paint (Graphics page)
    {
        final int MID = 100;       // MID
        final int TOP = 50;        // TOP

        page.drawRect (0, 0, 150, 100);  // R1
        page.drawOval (-20, 20, 40, 40);  // O1
        page.drawRect (MID, TOP, 20, 40);  // R2
        page.drawOval (MID-50, TOP+50, 100, 30);  // O2
    }
}
BE SURE TO INCLUDE PHOTOCOPY of page 100 of text (graphics methods). I have saved some of these so they don’t need to be copied every semester.