

cd _____

cp /Courses/cs11/examples/GUIExample.java
⊙

```
//import the Graphical Interface compnents
import javax.swing.*;

//import the drawing and event components
import java.awt.*;

//GUIExampe is a kind of panel
public class GUIExample extends JPanel{

    //paintComponent: this method gets called automatically
    // anytime the screen needs to be redrawn.
    // The Graphics object is what has all the drawing methods
    public void paintComponent(Graphics g){

        //There are certain things every panel must do to draw
        //itself, this takes care of them.
        super.paintComponent(g);

        //We may need to use the width and height to draw.
        //These might change (when the window is resized), so
        //check them every time.
        int width = getWidth();
        int height = getHeight();

    }
}
```

```
public static void main(String[] args){
    //Create an instance of out Panel
    GUIExample panel = new GUIExample();

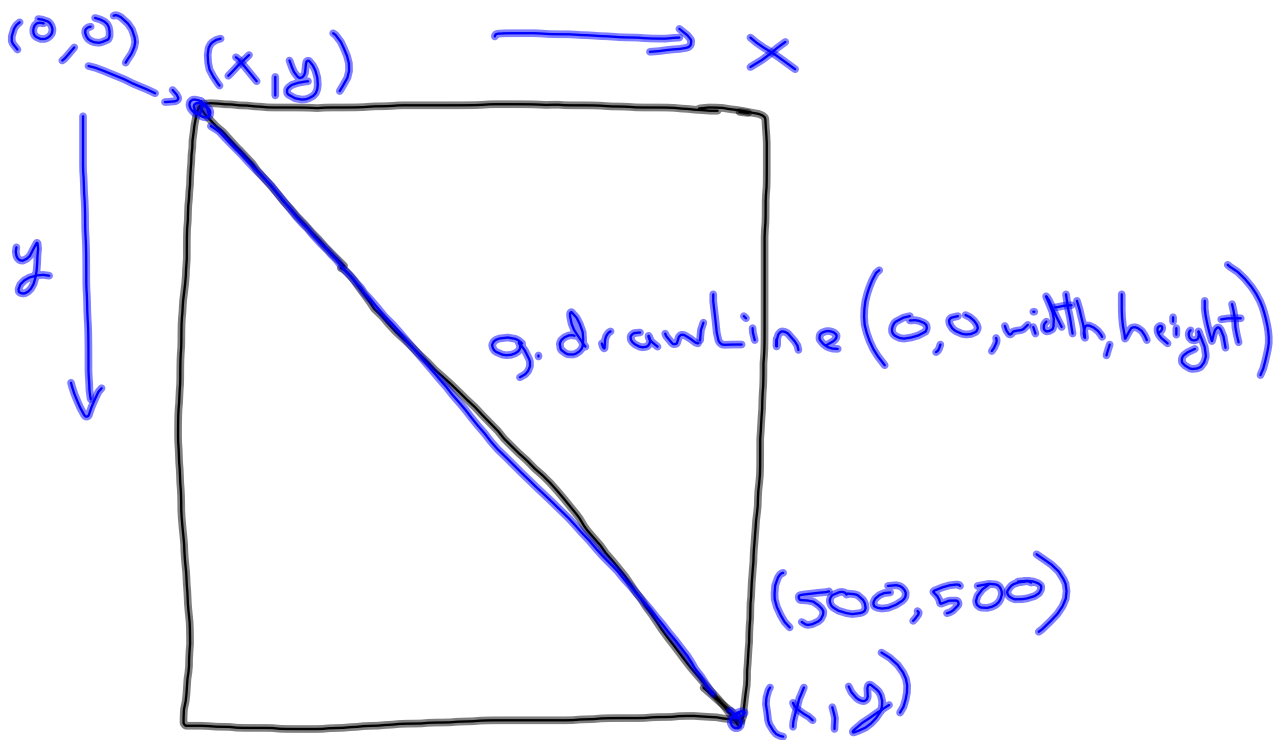
    //Create a window to hold our application.
    JFrame app = new JFrame();


    //Set up how the app should handle clicking the "x"
    app.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

    //add our panel to the app
    app.add(panel);

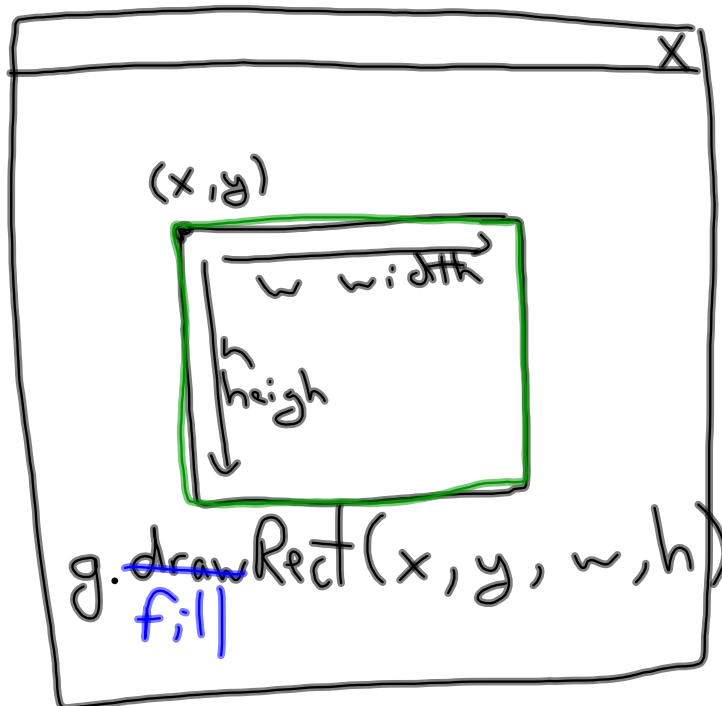
    //set the size of the app
    app.setSize(500, 500);

    //display the app's window
    app.setVisible(true);
}
```

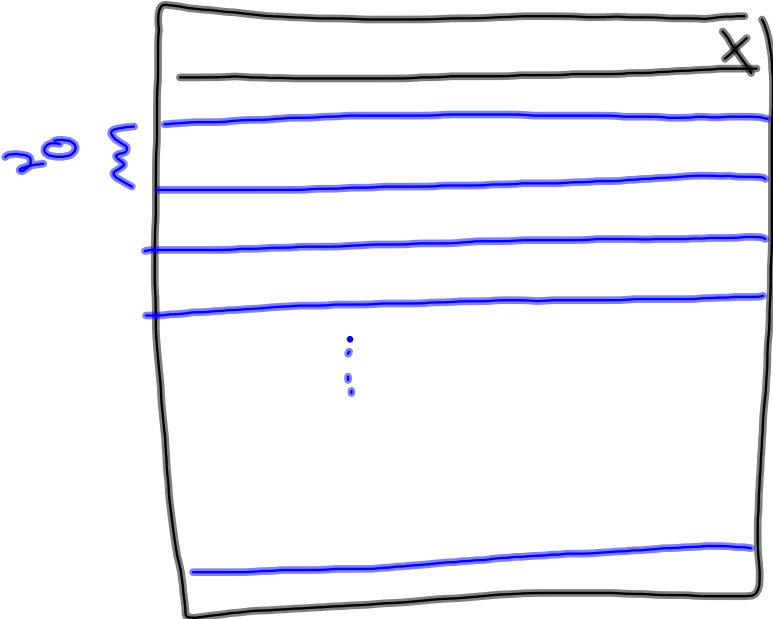


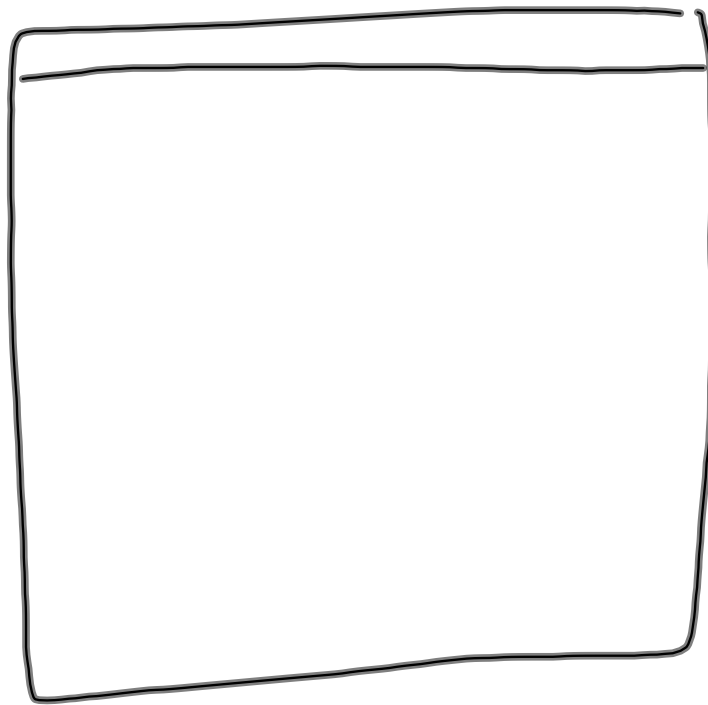


```
g.drawString("Hello", width/2,  
            height/2);  
g.setColor(Color.BLUE);
```



centered
 $w = \text{width}/2$
 $h = \text{height}/2$





exactly
10 lines

