Using the coordinate system below representing the graphics area of an applet, draw the graphics displayed by the applet, identifying positions MID and TOP (in terms of their use in the applet), and the shapes RECTANGLE, OVAL, LINE.

```java
import javax.swing.JApplet;
import java.awt.*;

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

        page.setColor(Color.black);
        page.fillOval (MID-10, TOP-20, 30,40);  // OVAL
        page.drawRect (0, 0, 30, 40);            // RECTANGLE
        page.drawLine (0, 60, 100, 60);          // LINE
    }
}
```

![Coordinate System Diagram](image)
Data Representation and Applets

**Drawing a Line**

```
page.drawLine (10, 20, 150, 45);
```

**Drawing a Rectangle**

```
page.drawRect (50, 20, 100, 40);
```

**Drawing an Oval**

```
page.drawOval (175, 20, 50, 80);
```

**Drawing an Arc**

- An arc is defined by an oval, a start angle, and an arc angle:

```
drawArc (10, 10, 60, 20, 90);
```
Using the coordinate system below representing the graphics area of an applet, draw the graphics displayed by the applet, identifying positions MID and TOP (in terms of their use in the applet), and the shapes RECTANGLE, OVAL, LINE.

```java
import javax.swing.JApplet;

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

        page.setColor(Color.black);
        page.drawOval (-20, -20, 40, 40); // OVAL
        page.fillRect (MID, TOP, 20, 40);   // RECTANGLE
        page.drawLine (0, 40, 80, 60);      // LINE
    }
}
```
Data Representation and Applets

Drawing a Line

```
page.drawLine(10, 20, 150, 45);
```

or

```
page.drawLine(150, 45, 10, 20);
```

Drawing a Rectangle

```
page.drawRect(50, 20, 100, 40);
```

Drawing an Oval

```
page.drawOval(175, 20, 50, 80);
```

Drawing an Arc

- An arc is defined by an oval, a start angle, and an arc angle:

```
drawArc(35, 10, 60, 30, 20, 80);
```

width 80