```
//--------------
    protected int calcx(float xp) {
        return(int) ((xp-minX) * xfactor + xpmin);
    }
//--------------
    protected int calcy(float yp) {
        int ypnt = (int)((yp-minY) * yfactor);
        return ypmax - ypnt;
    }
}
```

The two derived classes implement the *paint* method for the two kinds of graphs. Here is the one for the Line plot:

```
public class LinePlotPanel extends PlotPanel {

    public void paint(Graphics g) {
        Super.paint(g);
        int xp = calcx(x[0]);          //get the first point
        int yp = calcy(y[0]);
        g.setColor(Color.white);       //flood the background
        g.fillRect(0,0,getWidth(),     getHeight());
        g.setColor(Color.black);

        //draw bounding rectangle
        g.drawRect(xpmin, ypmin, xpmax, ypmax);
        g.setColor(color);

        //draw line graph
        for (int i = 1; i < x.length; i++) {
            int xp1 = calcx(x[i]);
            int yp1 = calcy(y[i]);
            g.drawLine(xp, yp, xp1, yp1);
            xp = xp1;
            yp = yp1;
        }
    }
}
```

The final two plots are shown in Figure 24.4.

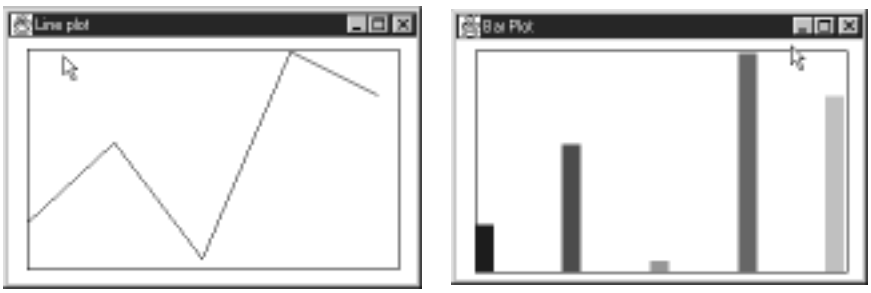

Figure 24.4 The line graph (left) and the bar graph (right).