Statistical Plots
**Student Activity**

Name _____

Class _____

After the following five lists are transferred to your calculator, you'll set up different types of stat plots and use the graphs to answer questions.

L1 (years from 1980 – 2004)

L2 (most home runs hit by a single player for the years given in L1)

L3 (total number of career home runs hit by the top 100 home run hitters)

L4 (number of home runs hit in 2004 by top 25 home run hitters for the American League)

L5 (number of home runs hit in 2004 by top 25 home run hitters for the National League)

Part 1 – Creating a Scatter Plot

1. Set up a Scatter Plot with **L1** as the Xlist and **L2** as the Ylist.

    Press [2nd] [STAT PLOT] [ENTER] to access the set up for **Plot1**. Then, use the arrow keys and [ENTER] to make selections.
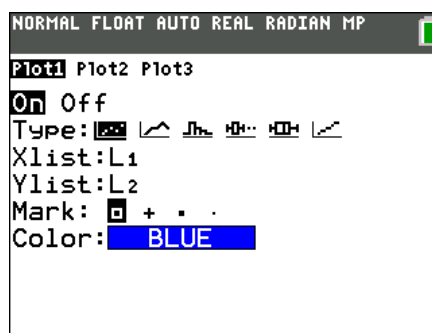
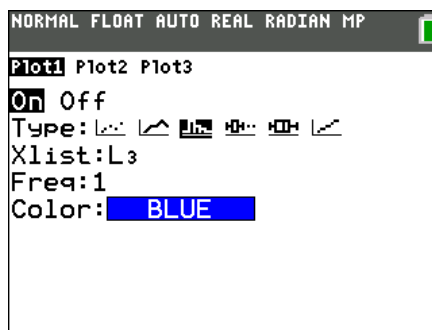2. Press [ZOOM] and choose **ZoomStat** to display the graph. Sketch the graph at the right. Show the scale and label the axes.

3. What information can you gather from the graph?

    _____

    _____

    _____

Part 2 – Creating a Histogram

4. Change Plot1 to a Histogram using **L3**. In the window settings set **Xmin** to 300, **Xmax** to 800, and **Xscl** to 50. Adjust the Y settings to see all bars.

5. How is the set up of this graph different from the scatter plot above? _____

    _____

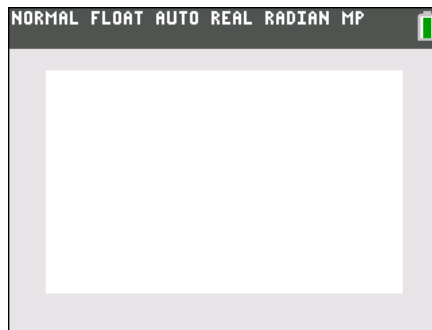   _____

6. Sketch the graph at the right. Show the scale and label the axes.

```
NORMAL FLOAT AUTO REAL RADIAN MP
```

7. What is easier to see with this type of graph?

    _____
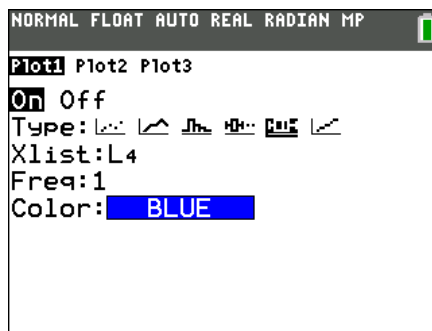
    _____

    _____

8. What happens to the graph if you adjust the **Xscl** to be larger? smaller? _____

    _____

    _____

    _____

**Part 3 – Creating Box Plots**

9. Change Plot1 to a Box Plot using **L4**.

    Set up Plot2 to a Box Plot using **L5**.

    Press ZOOM and choose **ZoomStat** to display the graph.

```
NORMAL FLOAT AUTO REAL RADIAN MP

Plot1 Plot2 Plot3
On  Off
Type:
Xlist:L4
Freq:1
Color:   BLUE
```

10. Sketch the graph at the right. Show the scale and label the axes.

```
NORMAL FLOAT AUTO REAL RADIAN MP
```

11. Press TRACE and use the arrows to explore the parts of the graph. What does this graph allow you to do?

    _____

    _____
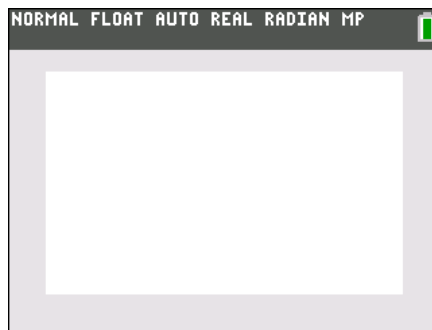
12. What can you gather from the graph? _____

    _____