**Task: Who Was the Greatest Yankee Home Run Hitter?**

The following table lists four of the greatest New York Yankees' home run hitters with the number of homeruns each hit while a Yankee.

Adapted from : James M. Landwehr and Ann E. Watkins, Dale Seymour Publications, Mathematics, 1986, Pg. 160

| Babe Ruth | | Lou Gehrig | | Mickey Mantle | | Roger Maris | |
|---|---|---|---|---|---|---|---|
| Year | Home runs | Year | Home runs | Year | Home runs | Year | Home runs |
| 1920 | 54 | 1923 | 1 | 1951 | 13 | 1960 | 39 |
| 1921 | 59 | 1924 | 0 | 1952 | 23 | 1961 | 61 |
| 1922 | 35 | 1925 | 20 | 1953 | 21 | 1962 | 33 |
| 1923 | 41 | 1926 | 16 | 1954 | 27 | 1963 | 23 |
| 1924 | 46 | 1927 | 47 | 1955 | 37 | 1964 | 26 |
| 1925 | 25 | 1928 | 27 | 1956 | 52 | 1965 | 8 |
| 1926 | 47 | 1929 | 35 | 1957 | 34 | 1966 | 13 |
| 1927 | 60 | 1930 | 41 | 1958 | 42 | | |
| 1928 | 54 | 1931 | 46 | 1959 | 31 | | |
| 1929 | 46 | 1932 | 34 | 1960 | 40 | | |
| 1930 | 49 | 1933 | 32 | 1961 | 54 | | |
| 1931 | 46 | 1934 | 49 | 1962 | 30 | | |
| 1932 | 41 | 1935 | 30 | 1963 | 15 | | |
| 1933 | 34 | 1936 | 49 | 1964 | 35 | | |
| 1934 | 22 | 1937 | 37 | 1965 | 19 | | |
| | | 1938 | 29 | 1966 | 23 | | |
| | | 1939 | 0 | 1967 | 22 | | |
| | | | | 1968 | 18 | | |

Source: Macmillan Baseball Encyclopedia, 4th edition

1. Find the mean, median, and mode, and number of observations for each player.

| | *Ruth* | | *Gherig* | | *Mantle* | | *Maris* |
|---|---|---|---|---|---|---|---|
| *Mean* | | | | | | | |
| *Median* | | | | | | | |
| *Mode* | | | | | | | |
| *n* | | | | | | | |

Of the three values you computed for each player, which do you think best describes the performance of each player? Why?

2. Make a stem and leaf plot for each player.

*Babe Ruth*

| stem | leaf |
|------|------|
|      |      |
|      |      |
|      |      |
|      |      |
|      |      |

*Lou Gehrig*

| stem | leaf |
|------|------|
|      |      |
|      |      |
|      |      |
|      |      |
|      |      |

*Mickey Mantle*

| stem | leaf |
|------|------|
|      |      |
|      |      |
|      |      |
|      |      |

*Roger Maris*

| stem | leaf |
|------|------|
|      |      |
|      |      |
|      |      |
|      |      |
|      |      |
|      |      |

From your graphical display, discuss which player appears to be the greatest home run hitter? Why did you choose this person?

3. Create a frequency table for Babe Ruth's home runs. Use the stem and leaf plot of data to help you organize your frequency table.

**Babe Ruth**

| home runs | frequency |
|-----------|-----------|
| 20-29 | |
| 30-39 | |
| 40-49 | |
| 50-59 | |
| 60-69 | |

4. Using the frequency table above, create a histogram of Babe Ruth's home runs.

5. Looking at the histogram, determine the range of homeruns Babe Ruth hit while playing for the Yankees.

6. Create a dot plot using Babe Ruth's home runs.

7. Describe the similarities between Babe Ruth's histogram and Babe Ruth's dot plot. Are there any differences? Does the range change between the histogram and the dot plot?