Practice for Box and Whisker Plots Name:

A. *Consumer Reports* tested 22 varieties of ice cream bars for the number of calories. The results are given below. The data has been ordered for your convenience.

111 131 147 151 151 182 182 190 197 201 209

234 286 294 295 310 319 342 353 377 377 439

1. Find the 5 number summary for this set of data.

Min. = _____ Q_1 = _____ Q_2 = _____ Q_3 = _____ Max. = _____

2. Calculate the range and inter-quartile range (IQR) for this set of data.

3. Determine if there are any outliers. If there are, list them.

4. Describe the shape of the distribution

B. Automotive engineers tested the braking distances (traveling at 30 mph) for 21 new cars. The results (in feet) are given below.

69 58 70 80 46 61 65 74 75 55 67 56 70 72 61

66 58 70 68 65

1. Find the 5 number summary for this set of data.

Min. = _____ Q_1 = _____ Q_2 = _____ Q_3 = _____ Max. = _____

2. Calculate the range and inter-quartile range (IQR) for this set of data.

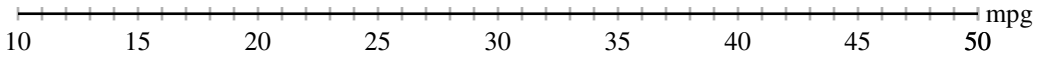
3. Determine if there are any outliers. If there are, list them.

4. Describe the shape of the distribution

C. 50 different year 2006 model vehicles were studied for average gas mileage (mpg). The data yielded the following 5 number summary:

Min. = 16 Q_1 = 22 Q_2 = 25 Q_3 = 34 Max. = 47

1. Using the scale below, create a box-and-whisker plot for the average mileage.



2. Which section (1st, 2nd, 3rd, or 4th) appears to have the most variability in mileage?

3. Which section (1st, 2nd, 3rd, or 4th) appears to have the least variability in mileage?

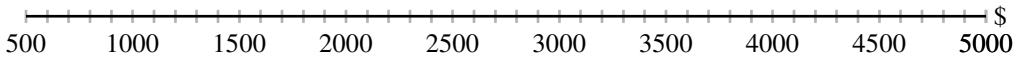
4. Calculate the (IQR).

5. Describe the shape of this distribution

D. 40 different large screen plasma TVs were studied for cost (to the nearest dollar). The data yielded the following 5 number summary:

Min. = 800 Q_1 = 1200 Q_2 = 1600 Q_3 = 2600 Max. = 4800

1. Using the scale below, create a box-and-whisker plot for the cost.



2. Which section (1st, 2nd, 3rd, or 4th) appears to have the most variability in cost?

3. Which section (1st, 2nd, 3rd, or 4th) appears to have the least variability in cost?

4. Calculate the IQR

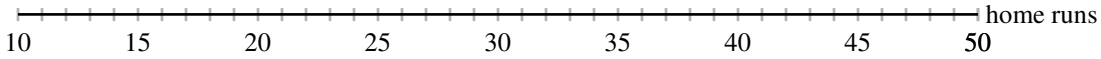
5. Describe the shape of this distribution

E. The number of home runs Hank Aaron hit in his 21 seasons are given below.

13	27	26	44	30	39	40	34	45	44	24	32	44	39	29
44	38	47	34	40	20									

1. Find the 5 number summary.

2. Using the scale below, create a box-and-whisker plot for the number of home runs.



4. Calculate the IQR

5. List any outliers

6. Describe the shape of the distribution.