Interpreting a Box & Whisker Plot
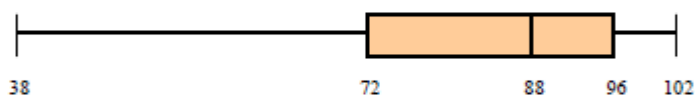
For questions 1 – 5, refer to the box & whisker graph below which shows the test results of a math class.

Test Scores (as %) for 9th Period

    38   72   88   96   102

_____   1. What was the high score on the test?

_____   2. What percent of the class scored above a 72?

_____   3. What was the median score on the test?

_____   4. What percent of the class scored between 88 & 96?

               5. Identify any possible outliers and state why.

The sales of the 15 largest American businesses are given below. Find the range, quartiles, and interquartile range for the sales figures. Then determine if there are any outliers.

Company	Sales (in billions)	Company	Sales (in billions)
Amoco	21	IBM	60
Chevron	25	Mobil	48
Chrysler	35	Occidental Petroleum	19
Du Pont	33	Phillip Morris	26
Exxon	80	Proctor and Gamble	19
Ford Motor	92	Shell Oil	21
General Electric	49	Texaco	34
General Motors	121		

7. The table below shows the median ages of men and women at the time of their first marriage for the decades of 1890 through 1990. Find the range, quartiles, interquartile range, and determine if there are any outliers for both the men and the women. Then make a box-and-whisker plot for each.

Year	Men	Women	Year	Men	Women
1890	26.1	22.0	1950	22.8	20.3
1900	25.9	21.9	1960	22.8	20.3
1910	25.1	21.6	1970	23.2	20.8
1920	24.6	21.2	1980	24.7	22.0
1930	24.3	21.3	1990	26.2	25.1
1940	24.3	21.5			

An internet company surveyed their users. The first 25 people who responded gave the ages shown below.

14. What intervals would you use to make a histogram?

25	43	65	12	8
30	44	68	18	21
25	33	37	54	61
29	31	38	22	48
19	34	55	14	21

15. Make a frequency table for this data.

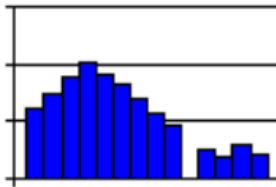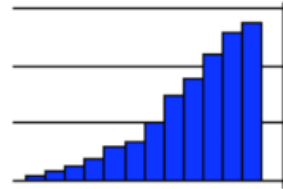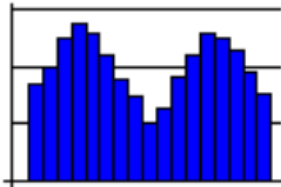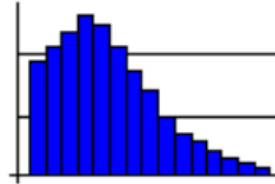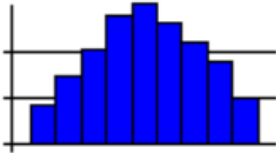16. Make a histogram to display the data.

1 – 5. For the following five histograms, list at least 3 characteristics that describe each histogram (consider symmetric, skewed to left, skewed to right, unimodal, bimodal, multi-modal, outliers, gaps, etc.; SOCS).

For any of the graphs up above that are symmetrical or skewed, approximate where you think the mean, median and mode would be. Use dashed lines like we did in our notes to show and label appropriately.