Stem-and-Leaf /Box-and-Whisker Plots
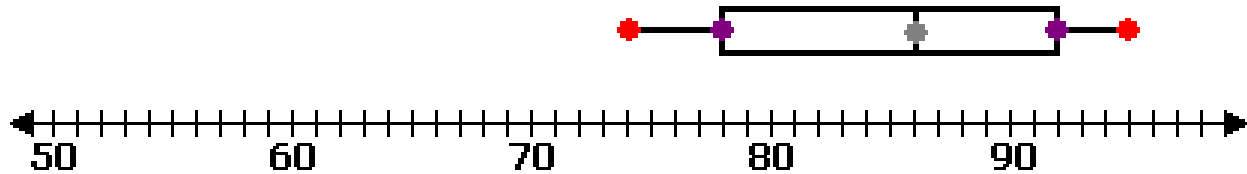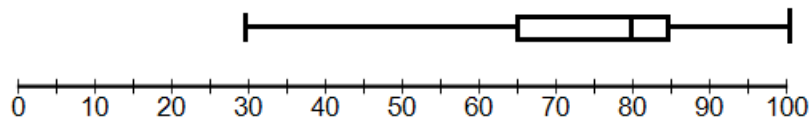
1.) Use the box-and-whisker plot to answer the questions below

Final Exam Grades

a) Determine the range of the final grades.

b) What percent of the data is from 78 – 95?

c) What is the interquartile range?

d) What is the median of the final exam grades?

e) Did half of the students score above an 80% on the final exam? Explain how you know.

2.) The algebra test scores from Ms. Grange's class are shown in the box and whisker plot below:

a) What is the interquartile range of the algebra test scores?

b) What percentage of students earned between 80% and 85%?

c) What percentage of students earned between 30% and 65%?

3.) Use the stem-and-leaf plot to answer the questions below.

Key: 4|0 = 40

```
4 | 0 1 3 5 8 9
5 | 3 5 6 6 7
6 | 1 2 2 7 9
7 | 0 3 3 3 4 6 8 8
8 | 2 4 4 7 7 9
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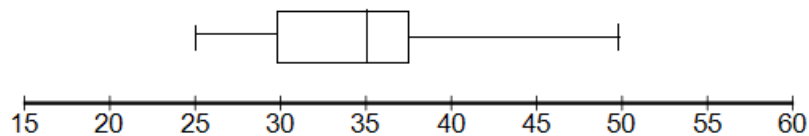a) What is the media of the data? b) What is the first quartile of the data?

c) What is the range of the data? d) What is the mean of the data?

e) What is the third quartile of the data?

4.) The box and whisker plot below shows the typing speed, in words per minute, of the students in Mr. Panko's typing class at the beginning of the year.

Based on this plot, which of the following statements are true?
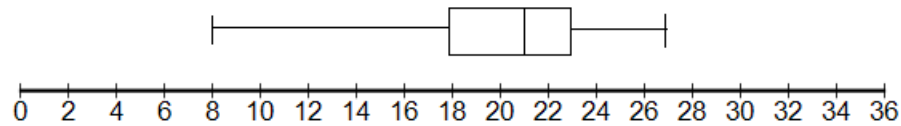
a) Exactly one student types 35 words per minute

b) Exactly one student types 37 words per minute

c) Half of the students type 35 words per minute or less

d) Half of the students type 37 words per minute or less.

5.) The box and whisker plot below shows the weight, in pounds, of each package a shipping company delivered in one day.

Which statement is **not** supported by the data in the box and whisker plot?

    a) The median package weight was about 21 pounds.

    b) The range in package weights was about 19 pounds.

    c) About one-fourth of the packages weighed between 21 and 23 pounds.

    d) More than half of the packages weighed less than 18 pounds.

6.) The stem and leaf plot below shows the finish times, in seconds, of the top ten runners in a race.

Race Finish Times

Stem	Leaf
30	2 8 8
31	4 6
32	0 5 5 6
33	
34	
35	
36	7

Key: 30|2 = 30.2 seconds

Which statement about the race times on the plot is true?

    a) The range of times is less than 6 seconds

    b) The median time is exactly 1 second greater than the first quartile time

    c) The third quartile time is more than 1 second greater than the median

    d) The interquartile range of the times is more than 2 seconds

7.) A geologist recorded the masses of some rock samples in the stem and leaf plot below:

Rock Sample Masses

1	5
2	2 6 7
3	
4	0 3 9
5	7
6	1 1 4

Key: 1|5 = 1.5 seconds

Based on the data, which statement is most accurate?

a) About 25% of the masses are less than 3 kilograms

b) About 50% of the masses are less than 4 kilograms

c) About 50% of the masses are between 2 and 6 kilograms

d) About 75% of the masses are less than 6 kilograms