Academic Algebra 2   Name:_____

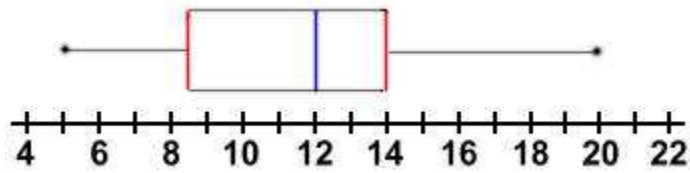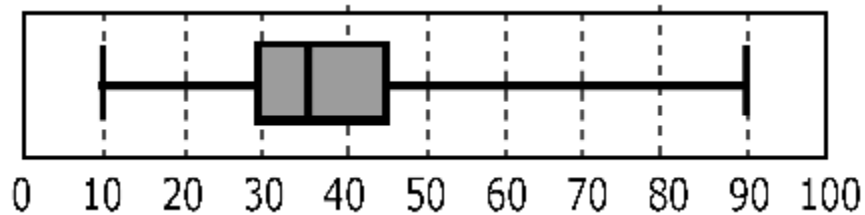   Date: _____   Block:_____

Box-and-Whisker Plot Homework Worksheet

1. Mr. Schuester determined the quarter grades for his Spanish class. He changed all the grades below
    60 to a 60. The original list of grades was: 60, 45, 97, 72, 59, 88, 83, 84, 89, 94, 75, 54, 77, 83, 77.

    (a) Find Quartile 1, the Median, Quartile 3, and the Mean for the original data set.

    (b) Create a box-and-whisker plot for the original data set.

    (c) What is the data set after the grades have been changed?

    (d) Find Quartile 1, the Median, Quartile 3, and the Mean for the new data set.

    (e) Create a box-and-whisker plot for the new data set.

    (f) When comparing the original data set and the new data set, which of the following
         changed? – Quartile 1, the Median, Quartile 3, and the Mean

    (g) When considering the new data set,

         a. About 25% of the class scored above what test score?

         b. Identify the range of test scores where the top 25% of the class had their test
             results.

2. Suppose you were to catch and measure the length of 13 fish in a lake. Here is a box-and-whisker plot of the data you collected:

(a) You then catch yet another fish. This fish is 6 cm long. What will change in the graph?

(b) Of the original 13 fish you caught, about 75% of the fish you caught are longer than what length?

(c) Identify the range of fish lengths that are in the top 50%.

3.   Suppose you were to survey students on how many hours they watch TV in a given week. Here is a box-and-whisker plot of the data you collected:

(a) You survey one more student. This student says he watches 81 hours of TV in a given week. What will change in the graph?

(b) Using the original data you collected, about 50% of the students you surveyed said they watched less than how many hours per week?

(c) Identify the range of hours that are in the bottom 25%.