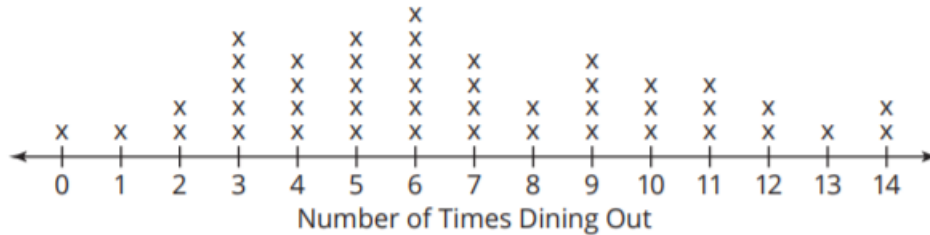Name:_____Date:_____Period:____

S.ID: *I can graph and describe data in different representations.*

1) A group of 45 adults were asked how many times they dined out the previous week. Their responses are shown in the dot plot.

Number of Times Dining Out

a) Describe the distribution of the dot plot.

b) Calculate the mean and median. Explain what they mean in terms of the problem situation.

2) A clothing store has two checkout methods. In Method A, the customer chooses a line at any of the cashiers' stations. In Method B, the customers wait in one line and then get called to the next available cashier. Data were collected for customers using both methods. The dot plots show the average wait times in minutes for 15 customers for each method of checkout.

Method A

Wait Time (minutes)

Method B

Wait Time (minutes)

a) Predict whether Method A or Method B has the greater standard deviation in wait times.

b) Determine the standard deviation for Method A and Method B. Round your answers to the nearest tenth. Explain what the standard deviations mean in terms of the problem situation.

c) Which waiting line method would you prefer if you were in a big hurry to checkout? Explain your reasoning.

3) The five number summaries for the heights in inches of male soccer and basketball players for a school district are provided.

Soccer Players	Basketball Players
Min = 61	Min = 65
Q1 = 63	Q1 = 69
Med = 66	Med = 71
Q3 = 68	Q3 = 73
Max = 71	Max = 78

a) Construct box-and-whisker plots of each type of player's heights using a single number line.

b) Describe each distribution and explain what they mean in terms of the problem situation

c) Determine if there are outliers in either data set. Explain how you determined your answer.

4) Consider the data set. Calculate the median, mean, IQR, and standard deviation. Then, determine which measure of central tendency and which measure of spread is the most appropriate to use to describe the data set. Explain your reasoning.

The following is a list of seconds it takes swimmers to swim 50 yards freestyle.

29, 27, 28, 24, 32, 30, 28, 29, 32, 26, 34, 30, 25, 27, 30, 29, 25, 28, 29, 32