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The Game of Greed – Lab

AP Statistics

**The Game Rules** – Everyone stands. Mr. Waddell throws the die twice and totals the numbers. This is everybody’s current score. Those that are happy with that score sit down and record that score as they are finished with that round. For the others that are still standing, the die is rolled again. If the die is 1, 3, 4, 5, or 6, that number is added to their past total. If it is a 2, the game is over and all those still standing receive a 0 for that round. A game consists of 5 rounds. The total game score is the sum of the scores for the 5 rounds.

Record your data here:

Round 1= \_\_\_\_\_\_\_\_\_\_\_ Round 2= \_\_\_\_\_\_\_\_\_\_\_ Round 3= \_\_\_\_\_\_\_\_\_\_\_

Round 4= \_\_\_\_\_\_\_\_\_\_\_ Round 5= \_\_\_\_\_\_\_\_\_\_\_ TOTAL = \_\_\_\_\_\_\_\_\_\_\_\_

Record your total and your gender on the board.

Write down the class data here:

Males:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Females:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. From the information above, construct a back to back stemplot for the data of game totals based on gender. Make sure that your stemplot is well labeled!!

2. Compare the distributions of game totals based on gender (Don’t forget your SOCS).

3. Are there any outliers in the male’s totals? *Justify your answer by showing work*.

4. Are there any outliers in the female’s totals? *Justify your answer by showing work*.

5. Construct side-by-side modified boxplots for the males vs. females game totals. Don’t forget your scales and labels!



6. Name at least one benefit the stemplot has over the boxplot. Name at least one benefit the boxplot has over the stemplot.

7. For your gender’s data, find the mean and median.

Mean \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Median \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which is a better description of the center? Why?

8. For your gender’s data, find the range, IQR, and standard deviation.

Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_ IQR \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Standard Deviation \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which is a better description of the spread? Why?