**Part III: Chapter 3: Descriptive Statistics**

**Task 1: Fill in the following chart concerning the measures of center for the variables:**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Best Measure of Center** | **Explain Why** |
| **Age** |  |  |
| **Gender** |  |  |
| **Race** |  |  |
| **Method of Death** |  |  |
| **Year (of death)** |  |  |

**Task 2: Sort the data according to age and create a modified boxplot. Copy and insert the boxplot below being sure to properly label the plots. Outliers are shown with an asterisk.**

**Are there any outliers in this data?**

* **To determine the highest and lowest boundary data values, you must first calculate the Interquartile Range (IQR):** 
* **Lowest boundary value =** 
* **Highest boundary value =** 

**Any data value outside these bounds is an outlier. List any outliers.**

**Task 4: Use Statdisk to do the descriptive statistics for the age data. Copy and paste this window into the table below. Use the select and cut functions in Statdisk to remove all the age outliers you determined in task 2 from the age data. Again, use Statdisk to find the descriptive statistics and paste into the table.**

|  |  |
| --- | --- |
| **Descriptive Statistics: AGE (all values)** | **Descriptive Statistics: AGE (outliers removed)** |
|  |  |

* **Describe how the mean changed when the outliers were removed.**
* **Describe how the standard deviation changed when the outliers were removed.**

**Task 5:**

* **Determine the z score for the age of 107, the highest data value.**
* **Complete the following statement: The z-score of \_\_\_\_ means that the individual data value \_\_\_\_\_\_ is \_\_\_\_\_ standard deviation units above/below (circle one) the mean value of \_\_\_\_\_\_\_.**
* **Is this an unusual z score? Why or why not?**