Name _____

Teacher _____

Date _____/_____/_____

Looking at Our 2020 Class Census Data – Part 2

The U.S. Census Bureau will use the data gathered in Census 2020 to develop <u>statistics</u> that tell us more about our country. Some of the statistics the U.S. Census Bureau might use are: **minimum, maximum, range**, **mode, median** and **mean** (or average). The Census 2010 Facts box to the right gives you two of these statistics for 2010. Read the Census 2010 Facts box. Follow the instructions below to develop census-style statistics for your class.	**United States 2010 Census Facts** • The mean (or average) number of people in a U.S. household family was 3.14 in 2010 • The median age of people in the United States in 2010 was 37.2 years.

<u>Household Size</u>

Workers at the United Census might also determine other important facts about the household sizes. Calculate the following values using the instructions given in the video and with assistance of the directions included below. Don't hesitate to go back to the video and rewatch the section describing how to do the calculations, if you need help. Then answer the question.

range in household size = _____   (largest size – smallest size = _____- _____= ____)

mode of household size = _____   (the value of household size that occurs the <u>most</u>)

median household size = _____   (the value of the <u>middle</u> size after the numbers have been sorted and listed from least to greatest). Remember, an easy way to do this using the line plot is to 1) count the number of X's, 2) add 1 to that number, and 3) divide that number by 2. Then count X's from the left side of the plot until you get to that number of X's. The household size on the line plot below that X is the median household size.

mean household size = _____   sum of the values of the sizes ÷ number of addends)

= _____ ÷ _____ = _____ (use a calculator)
To do this, first add up the values for all of the X's. Remember that each X represents a household. Then, divide the sum by the number of addends, or the number of numbers you added up. Rewatch the part of the video clip on calculating the mean if you have trouble.

1. Compare the household size **mean** for your class to the mean for the United States in 2010, 3.14 people in each household.

    a. Is the mean household size for your class higher or lower than the mean for the United States in 2010?

    b. <u>Why</u> do you think the mean household size from your class is different?

Ages of People in Households

Calculate the following values using the instructions given in the video and with assistance of the directions included below.   Don't hesitate to go back to the video and rewatch the section describing how to do the calculations if you need help. Then answer the questions.

range in age =   _____   (highest age – lowest age = _____ - _____ = ____)

mode of age =   _____   (the <u>value</u> of the age that occurs the <u>most</u>

median age =   _____   (the value of the <u>middle</u> age after the ages have been sorted and listed from least to greatest). Remember, an easy way to do this using a line plot is to 1) count the number of X's, 2) add 1 to that number and then 3) divide that number by 2. Then count X's from the left side of the plot until you get to that number of X's. The age below that X is the median age.

2. Compare the **median age** you calculated for ages of people in households for your class to the national median age for the United States in 2010, 37.2 years.
    a. Is the median age for people in households in your class higher or lower than the national age?

    b.   About how many years much is it higher or lower?

    c. Why do you think your class' median age is different from the national median age?

3. How do you think the range, mode, and median age you calculated for your class would compare to other classes in <u>the same</u> grade → About the same? Lower? Higher? Explain your reasoning.

4. How do you think the range, mode, and age you calculated for your class would compare to other classes in <u>other</u> grades → About the same? Lower? Higher? Explain your reasoning.

Answer Sheet – the answers given here are _likely_ true for all classes.

Household Size

1. Compare the household size **mean** for your class to the mean for the United States in 2010, 3.14 people in each household.

    a. Is the mean for your class higher or lower than the mean for the United States in 2010?

    Answer: Your class' mean household size should be between four and five people, a little more than one person higher than the mean for the United States in 2010.

    b. Why do you think the mean from your class is different?
    Answer: The households of students in your class are larger because all households in your class have children living in them, while in the entire United States not all households will have children living with them (e.g. older couples who have children who are grown up and moved out of the house, couples who are young and don't have children yet, single people) and would be smaller.

Ages of People in a Household

2. Compare the **median age** you calculated for ages of people in households for your class to the national median age for the United States in 2010, 37.2 years.
    a. Is the median age for people in households from your class higher or lower than the national age?
    b. By how about many years much is it higher or lower?

    Answer: The median age for people in households your class should be a lot lower than the national average by about 20-25 years, about 12-15 years versus about 37 years.

    c. Why do you think your class' median age is different from the national median age?

    Answer: Nearly all households in your class all have at least two children and their parents. There are very few, if any, people older than 60 years or older in households of students in your class.

3. How do you think the range, mode, and median age you calculated for your class would compare to other classes in _your_ grade → About the same? Lower? Higher? Explain your reasoning.

    Answer: The range, mode, and median age for your class would be close to other classes in your grade because the students would be the same age and have parents and other family members about the same age, too.

4. How do you think the range, mode, and median age you calculated for your class would compare to other classes in _other_ grades → About the same? Lower? Higher? Explain your reasoning.

    Answer: The mode and median age for your class would likely only be a year or two _lower_ than classes in grades that were a year or two _higher_ and a year higher or two _higher_ than classes in grades that were a year or two _lower_. The range in age would be largely dependent on the age of the oldest person in the household since some households have grandparents or older relatives living with them and some households do not.