**STATS PROJECT #1 – REPRESENTATION**

**NAME:**

**CLASS:**

**DATE**: June 16, 2019

**PART A – GETTING COMFORTABLE (OR UNCOMFORTABLE)**

A1 Search the internet and determine how often people blink?

>

Website URL:

A2 Search the internet using the words “personal space bubble” and review a website or two. What is the distance (feet or inches) before a friend intrudes your “intimate” space?

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What is the distance (feet) before an acquaintance intrudes your “friendly” space?

>

Website URL:

A3 Search the internet using the word “heebie-jeebies”.

Definition:

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Synonyms:

>

Antonyms:

>

Website URL:

A4 Class activity. Pick a partner in class that you don’t know very well. Stand or sit uncomfortably close – push your bubble but don’t break intimate space. When the teacher says start, look into each other’s eyes without blinking. Write down the following:

Partner’s name?

>

Partner’s eye color?

>

How many seconds until the first person blinked?

>

A5 Go to <https://fairhousingact.org/the-7-protected-classes-under-the-fair-housing-act/>. How does the site define “protected class”?

>

List the 7 federally protected classes under the Fair Housing Act.

>

A6 Search the web and define “demographics”.

>

Website URL:

A7 Class activity. Pick another partner that you don’t know very well. Get uncomfortably close without infringing intimate space. When the teacher says go, the first person will say “I like \_\_\_\_\_\_”, then then the partner will say “I like \_\_\_\_\_\_\_”, then repeat back and forth until the teacher says stop. You cannot repeat what you or your partner have said, and you cannot follow their response with something trite. For example, if your partner says “I like dogs”, you cannot follow that with “I like cats”.

Partner’s name?

>

Partner’s eye color?

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Something that your partner likes and you do too?

>

Something that your partner likes but you do not?

>

A8 Search the web to find a good definition of “tolerance”.

Definition:

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Synonyms:

>

Antonyms:

>

Website URL:

A9 Go to <http://www.jstory.org> and type “Limits of Tolerance” in the search window. Scroll down the page and click on the title “The Limits of Tolerance” and read the “Introduction”. In your own words, what is the notion of limits of tolerance?

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A10 Go to <http://www.goodreads.com/quotes/tag/tolerance> and review the quotes. Which is your favorite quote?

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Author:

>

Why is it your favorite?

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**PART B – GATHERING DATA**

B1 Research the web and find the 10 largest cities in the U.S. by population.

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| --- | --- |
| **City** | **Population** |
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Website URL:

B2 Pick one of the cities above and find population data from the following years.

City:

Website URL:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1970** | **1980** | **1990** | **2000** | **2010** |
|  |  |  |  |  |

B3 Pick one of the cities above with an interesting demographic (race, religion, national origin, income, education, etc.). By interesting, I mean that there isn’t one dominant subgroup, but rather several large subgroups. Also, it is helpful to pick a type of demographic that you can easily find information on. List the demographic information in the table below. If the subgroup is small, you can lump them with other small subgroups and name them “Other”. Round to the nearest % (no decimals). Your % values should add up to 100.

City:

Demographic of Interest:

Website URL:

|  |  |
| --- | --- |
| **Subgroup** | **% of Population** |
|  |  |
|  |  |
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|  |  |
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**PART C – GRAPHING DATA**

C1 Research the web and state the pros/cons of each of the following graphs.

Bar Graph (sometimes referred to as Column Graph)

Pros:

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Cons:

>

Do you prefer horizontal or vertical (column) bar graphs?

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Why?

>

Do you prefer your bars to be touching or spaced apart?

>

Why?

>

Circle Graph (sometimes referred to as Pie Chart or Donut Graph)

Pros:

>

Cons:

>

Line Graph

Pros:

>

Cons:

>

Scatter Plot

Pros:

>

Cons:

>

C2 Refer to the population data from step B1. What is the best type of graph to illustrate the data?

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What other types of graphs could you use (if any)?

>

What types of graphs are not appropriate (if any)?

>

Why?

Copy the City and Population values from step B1 to the cells (B5:C14) on the first page of the Excel Stats Representation spreadsheet named “Data”. Look at the graph on the next page of the Excel spreadsheet named “Top Ten Vertical”. Create a title, label the axes, and add any personal flair you want. The more creative the better.

Look at the graph on the next page of the Excel spreadsheet named “Top Ten Horizontal”. Create a title, label the axes, and add any personal flair you want. The more creative the better.

Which graph do you like better?

>

Why?

>

C3 Refer to the population data from step B2. What is the best graph to illustrate the data?

>

What other types of graphs could you use (if any)?

>

What types of graphs are not appropriate (if any)?

>

Why?

>

Copy the Year and Population values from step B2 to the cells (A18:B22) on the first page of the Excel spreadsheet name “Data”. Look at the graph on the 3rd page of the Excel spreadsheet named “City Changes”. Create a title, label the axes, and add any personal flair you want. The more creative the better.

What do you think of this graph?

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C4 Refer to the demographic data from step B3. What is the best type of graph to illustrate the data?

>

What other types of graphs could you use (if any)?

>

What types of graphs are not appropriate (if any)?

>

Why?

Copy the Subgroup and Percent info from step B3 to the cells (A27:B?) on the page of the Excel spreadsheet named “Data”. Look at the graph on the 4th page of the Excel spreadsheet named “Demographics”. Create a title, label the axes, and add any personal flair you want. The more creative the better.

What do you think of this graph?

>

C5 Save this Word document and the Excel spreadsheet as firstname.lastname.representation (different extensions) and email both to me.