**SET PROJECT #3 – SURVEYS AND VENN DIAGRAMS**

**NAME:**

**CLASS:**

**DATE**: June 8, 2019

**PART A – SURVEYS**

A1 Research the web to define etymology.

Definition:

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Website URL:

A2 What is a survey? Go to <https://www.merriam-webster.com/dictionary/survey?src=search-dict-box> and review the page. What is the most appropriate definition for the transitive verb form?

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What is the most appropriate definition for the noun form?

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What is the etymology of survey?

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Do you think the etymology is in alignment? Explain.

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Review the definitions of survey for “English Language Learners” and for “Kids”. Which definition do you think is best? Why?

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A3 What is a poll? In the search box on the same site, type “poll”. Review the definitions for the noun form. Which one(s) do you think is most appropriate?

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A4 Go to <http://web.mit.edu/subjectevaluation/docs/TLL_QuestionWritingTips.pdf> and review.

What are the 4 types of survey questions?

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What is the strength of a Likert Rating Scale question?

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What is a weakness of an Open-Ended question?

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Which of the 10 Guidelines do you feel is most important? Explain.

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A5 Go to <https://www.surveymonkey.com/mp/take-a-tour/?ut_source=megamenu> and click on the pull-down menu for Examples. List 3 examples.

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Click on Plans & Pricing” then click on the blue text “SEE ALL PLAN FEATURES”

How much does the Basic plan cost?

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How many surveys can you conduct?

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How many questions can you include on each survey?

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What is the maximum number of responses?

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Click on the white box “SIGN UP” under the Basic plan and create a FREE account. Be sure to remember your Username and Password as you will need this later.

Username:

>

Password Hint:

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**PART B – DOGS AND CATS**

B1 Ask 10 people the following questions and record their responses.

1. Do you have a dog?
2. Do you have a cat?
3. Do you have both a dog and a cat?

How did you ask them? Text, In-Person, email, etc.

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| --- | --- | --- | --- | --- |
| First  Name | Dog?  Y or N | Cat?  Y or N | Dog and Cat?  Y or N | How?  Text, in-person, email, etc. |
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B2 Draw a big Venn Diagram for your dog and cat survey. Let D represent the set of Dog owners and C represent the set of Cat owners. Review <https://www.mathsisfun.com/sets/venn-diagrams.html> if needed.



How many circles did you need?

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How many regions are on your Venn Diagram?

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What is your Universe?

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In words, what does D∩C represent and what is the numerical value?

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In words, what does (DUC)c represent and what is the numerical value?

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In words, what does D∩Cc represent and what is the numerical value?

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Do all your numbers in the Venn Diagram sum to 10? If not, something is wrong. Be sure to fix it before moving on.

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Why didn’t we ask the following the questions? Explain.

1. Do you own just a dog?
2. Do you own just a cat?
3. Do you own neither a dog nor cat?

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**PART C – YOUR TURN**

C1 Think of a topic that has 3 sets associated with it. Examples include:

Credit Cards (Visa, Master Card, American Express)

Electronic Communication (email, text, Tweet)

Social Media (Facebook, Snapchat, Instagram)

Vegetables (Asparagus, Beets, Cauliflower)

There are unlimited possibilities. Be creative. Pick a topic that interests you.

Topic:

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3 Sets:

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C2 Carefully design a survey so that you can analyze your topic. If you were using the same question format as we did with Dogs and Cats above, how many questions would you need with 3 sets to fully analyze the data?

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What are the questions?

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C3 Create a high-quality survey on Survey Monkey <https://www.surveymonkey.com/user/sign-in/> and send it to 20+ people (one of which must be me). How many did you send it to and how many responses did you get? If less than 15, you will need to send it to more people.

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What was your response rate for the first week? (round to the nearest %)

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C4 Construct a large Venn Diagram from your results. Be sure to include a title and a legend letting me know what your topic is and what your circles represent.

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C5 Save this Word document as firstname.lastname.survey and email to me.