

Math 175 – Spring 2018
Assignment: G1
Due: In class today, and ongoing

Names: _____

For this assignment, you will be **designing a data collection protocol** and then **collecting data** for a study.

First, look at the spreadsheet of the data that was collected last week. This is the data from the survey taken in class, and it represents both sections of Math 175. The survey items are shown here for your reference:

<p>Home: City _____, State/Province _____, Country _____</p> <p>Age: years: _____, months: _____</p> <p>What year did you graduate high school (or equivalent)? _____</p> <p>Number of siblings (half/step included): _____</p> <p>Driving time to your permanent residence: _____</p> <p>(Please use hours:minutes, rounded to the nearest 5 mins and write "N/A" if your home is not accessible by car from here)</p> <p>How many credits are you enrolled in this term? _____</p> <p>Class standing (circle): FR SO JR SR UNSURE</p> <p>For how many years did you play organized sports? _____</p> <p>Mac or PC? (circle) MAC PC BOTH</p> <p>Which hand are you writing with right now? (circle) LEFT RIGHT</p> <p>How much money will you spend today commuting to and at school? (lunch, estimated transit costs, etc.): \$ _____</p> <p>Approximately how many times do you cook your own dinner each week? (circle) 0 1 2 3 4 5 6 7</p> <p>How many people (adults & children) live full-time in your residence, including you? _____</p> <p>Approximately how many hours per week do you exercise? (whole numbers, please) _____</p> <p>What time did you go to bed last night? _____</p> <p>What time did you wake up today? _____</p> <p>How much money do you have in <u>coins</u> with you right now? \$ _____</p> <p>Which sock do you put on first? (circle) LEFT RIGHT</p> <p>How many different people did you text with in the last 24 hours? (check your phone) _____</p> <p>How many different people did you talk to on the phone with in the last 24 hours? _____</p> <p>Are you wearing glasses or contact lenses right now? (circle) YES NO</p> <p>Do you have a smartphone with you right now? (circle) YES NO</p> <p>How many Harry Potter books have you read entirely (circle one): 0 1 2 3 4 5 6 7 8 9</p> <p>Flip a coin. What outcome did you get? (circle)? HEADS TAILS</p>
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Look over the data with your group members to find trends or irregularities.

List two things that you find interesting or perplexing about the data (but **not** about an individual data point).

(1)

(2)

Explain what you think each of these variables can *indirectly* tell you about a person.
(For example, *coins* might be able to tell you whether a person carries a purse.)

Credits: _____

Exercise: _____

Wake: _____

Talk: _____

Come up with a variable that was *not* in the survey that you believe may be associated with one of those listed above.

We believe that _____ may be related to _____
 (choose Credits, Exercise, Wake, or Talk) (other variable of your design)

Classify each of the variables discussed above by circling their characteristics below.

	Quant = Quantitative Qual = Qualitative	Disc = Discrete Cont = Continuous	N = Nominal I = Interval O = Ordinal R = Ratio
	<u>Qual or Quant?</u>	<u>Disc or Cont?</u>	<u>Level of Measurement</u>
<i>Credits</i>	Qual – Quant	Disc – Cont	N – O – I – R
<i>Exercise</i>	Qual – Quant	Disc – Cont	N – O – I – R
<i>Wake</i>	Qual – Quant	Disc – Cont	N – O – I – R
<i>Talk</i>	Qual – Quant	Disc – Cont	N – O – I – R
_____	Qual – Quant	Disc – Cont	N – O – I – R

(second variable listed above)

Do you believe that *Credits*, *Exercise*, *Wake*, or *Talk* has a dependency with the other variable listed? If so, which one is independent and which one is dependent? Otherwise, circle “no dependency.”

Independent Variable: _____ **No dependency**

Dependent Variable: _____

Explain your reasoning, or why you believe there is no dependency:

Discuss in your group how you can collect data from a large number of students for two variables above (one variable will be *Drive*, *Exercise*, *Wake* or *Talk*, and the second will be the one you came up with). Design *in detail* a sampling protocol to collect the data. Be sure to make it a plan that you can actually undertake given the resources that you have available to you. Make this an easy task or else it may get unreasonably difficult very quickly.

Describe your plan **IN DETAIL**, including **HOW** you will choose your sample, on the back of the chart.

List three confounding variables and explain how the influence of each can be limited (if possible):

CV 1: Control:

CV 2: Control:

CV 3: Control:

Submit this completed document today and collect the data, just as you’ve described, over the next week.