TIP: There are three exercises here, all on the same topic. I would space out when you do each exercise, rather than doing all three in one sitting immediately after learning the concepts in class, or all three in one sitting immediately prior to the exam. The keys for all three exercises are on p. 2. Please come to office hours to ask questions about these examples.

Exercise A

Instructions:

Identify whether each variable is quantitative (continuous) or qualitative (categorical).

*Then,* identify whether or not each qualitative variable is binary (dichotomous).

1. Time it takes you to check a text message after hearing the notification
2. Temperature of your milkshake in Celsius degrees
3. How many hours per week you spend completing fun statistics exercises
4. Type of breeds of cats (e.g., Siamese)
5. Whether you work full time, part time, or not at all
6. The BSC residence hall a student lives in
7. How much you like koalas, on a scale from 1-not at all to 5-extremely

Exercise B

Instructions:

Identify whether each variable is quantitative (continuous) or qualitative (categorical).

*Then,* identify whether or not each qualitative variable is binary (dichotomous).

1. Ranking of best to worst residence halls on campus
2. Types of athletic teams at BSC
3. Whether or not you own a bicycle
4. The exact distance you have hiked this year
5. The foods you are allergic to
6. A person’s birth order in a family (assuming more than 1 child)
7. How much of a night-owl vs. morning person you are, on a scale from 1-completely a night-owl to 10-completely a morning-person

Exercise C

Instructions:

Identify whether each variable is quantitative (continuous) or qualitative (categorical).

*Then,* identify whether or not each qualitative variable is binary (dichotomous).

1. Weight of ice cream you ate this past summer
2. Weight you gained from eating ice cream last summer
3. # of times my cat, Lily, falls off the desk each time I work on statistics exercises
4. Whether the cockroach in your house is dead or alive
5. Whether you are of drinking age or not
6. Which candidate you voted for in the last U.S. Presidential election

**Key for Exercise A**

1. Time it takes you to check a text message after hearing the notification **quantitative, as it’s an amount (e.g., measured in milliseconds, or seconds, or hours (or days, if you’re Dr. V’s mom!)**
2. Temperature of your milkshake in Celsius degrees **quantitative**
3. How many hours per week you spend completing fun statistics exercises **quantitative**
4. Type of breeds of cats **qualitative/categorical (there are more than 2 breeds, so it’s not dichotomous)**
5. Whether you work full time, part time, or not at all **qualitative/categorical**
6. The BSC residence hall a person lives in **qualitative/categorical (I believe there are more than 2, so it’s a qualitative/categorical variable but not dichotomous)**
7. How much you like koalas, on a scale from 1-not at all to 5-extremely **quantitative. Remember that scales like this will always be considered quantitative in most psychology research.**

**Key for Exercise B**

1. Ranking of best to worst residence halls on campus **qualitative/categorical (This one could have been tricky, as when you think “rank,” you might think numbers (1st, 2nd, 3rd, etc.), which makes you think “quantitative.” While rank data involve numbers, rank data are not amounts or counts. They are more similar to Olympic medals – gold for 1st place, silver for 2nd, etc.). *Always treat rank data as qualitative*.**
2. Types of athletic teams at BSC **qualitative/categorical**
3. Whether or not you own a bicycle **qualitative/categorical – in particular, it is dichotomous/binary qualitative/categorical; you either own a bicycle or you do not, so there are only 2 categories.**
4. The exact distance you have hiked this year **quantitative**
5. The foods you are allergic to **qualitative/categorical (given that there are more than 2 foods that people can be allergic to, this variable is not dichotomous)**
6. A person’s birth order in a family (assuming more than 1 child) **qualitative/categorical (given that families can have any number of children, this variable is not dichotomous. You can be the 1st born, 2nd born, 3rd born, etc.)**
7. How much of a night-owl vs. morning person you are, on a scale from 1-completely a night-owl to 10-completely a morning-person **quantitative. Remember that scales like this will always be treated as quantitative in most psychology research.**

**Key for Exercise C**

1. Weight of ice cream you ate this past summer **quantitative**
2. Weight you gained from eating ice cream last summer **quantitative**
3. # of times my cat, Lily, falls off the desk each time I work on statistics exercises **quantitative**
4. Whether the cockroach in your house is dead or alive **qualitative/categorical, dichotomous**
5. Whether you are of drinking age or not, **qualitative/categorical, dichotomous**
6. Which candidate you voted for in the last U.S. Presidential election **qualitative/categorical (not dichotomous since there were more than 2 candidates on the ballot for President)**