

1. The following five questions are focused around a public library. Staff members are trying to gain insight on current library card holders and have sent out a short survey to them. Read each prompt carefully and determine the variable type for each question.

Library card holders were asked whether or not they have checked out a book from the library in the past month (yes or no). What type of variable would their response be considered?

- ☒ Categorical Nominal
- ☐ Categorical Ordinal
- ☐ Quantitative Continuous
- ☐ Quantitative Discrete

✓ **Correct**

Nominal variables consist of groups or names in which there is no inherent ordering. Here, library card holders can be categorized into two groups (checked out a book or not) and these two groups have no inherent ordering.

2. Library card holders were asked to report the amount of late fees they have been charged in the past year (input in the form of \$XX.XX). What type of variable would their response be considered?

- ☐ Categorical Nominal
- ☐ Categorical Ordinal
- ☒ Quantitative Continuous
- ☐ Quantitative Discrete

✓ **Correct**

Quantitative variables are numeric, measurable quantities. The variable is continuous because it can take on a very large range of values. A library card holder could have late fees of \$0.40, \$8.50, or a very broad range of other options.

3. Library card holders were asked to reflect on their most recent book they checked out and report the genre that it most closely represented (i.e. Science Fiction, Action, Romance, Mystery, etc.). What type of variable would their response be considered?

- ☒ Categorical Nominal
- ☐ Categorical Ordinal
- ☐ Quantitative Continuous
- ☐ Quantitative Discrete

✓ **Correct**

Nominal variables consist of groups or names in which there is no inherent ordering. Here, library card holders are grouped by the genre of their most recent checkout. These resulting groups have no inherent ranking or ordering.

4. The library recently added a new online checkout/renewal system. Library card holders were asked how many times they have used the new online system. What type of variable would their response be considered?

- ☐ Categorical Nominal
- ☐ Categorical Ordinal
- ☐ Quantitative Continuous
- ☒ Quantitative Discrete

✓ **Correct**

Quantitative discrete variables are measurable quantities with a small set of countable values. Here, we're measuring the number of times a library card holder has used the online system. You could only access the system an integral number of times, not 4.3 times or something similar.

5. Library card holders were asked to report the satisfaction of their library experience during their last visit using a 1 to 5 scale (with the following representations: 1 - Extremely Unsatisfied, 2 - Unsatisfied, 3 - Neutral, 4 - Satisfied, 5 - Extremely Satisfied). What type of variable would their response be considered?

- ☐ Categorical Nominal
- ☒ Categorical Ordinal
- ☐ Quantitative Continuous
- ☐ Quantitative Discrete

✓ **Correct**

Ordinal variables consist of groups or names with an inherent ordering or ranking. Here, library card holders group their satisfaction into one of five categories and these categories have a specific ranking.