

**Objectives:** Before you begin coding, it's important to have a plan for data wrangling. In this activity, you will be asked to obtain a specific data frame fitting one or more requirements. You will need to determine which **dplyr** verbs can be applied to obtain which variables in which order to obtain the desired data. You only need to worry about the **verbs**, the **variables**, and the **order**, not the particular syntax in R.

**Assignment** Organize yourself into groups of 3 or 4. **Work together** to answer the following questions. Write your answers on a chalkboard in the classroom.

### The Data

For Wednesday's class, Math 141 students were asked to complete a survey containing a series of serious and not-so-serious questions. A key for the variables in the table is printed on the reverse side of this page, and a .csv file of the data itself is available on today's section of the schedule page of the course website.

### The Tasks

Note: You do not need to create the actual data frames or actually compute any values. Just described the verbs, variables, and order needed to obtain the desired data frame. (Although if time permits, you are invited to create some of the data frames once you have finished)

1. Sort students by division, and within division, by year.
2. Find the number of students in each year whose primary mode of transportation is walking.
3. Calculate the median number of college applications submitted by students who play Wordle.
4. Create a data set consisting only of categorical variables (ordered alphabetically), and with student responses ordered alphabetically, starting with the first variable.
5. Identify students whose social and economic views differ by 2 or more points.
6. Create a data set consisting of two variables: Diet and Height (in inches)
7. Count how many students think both that dogs should wear pants on their back legs and that hot dogs are sandwiches.
8. Among students who drink coffee and whose hometown is at least 100 miles from Reed, create a data set that could be used make a scatterplot of bedtime vs. weekly hours spent studying.
9. Create your own data wrangling task based on this survey data frame.

Header	Explanation
height_cm	Height in centimeters
applications	Number of colleges applied to
distance_home_miles	How far (in miles) the student's hometown is from Reed
academic_year	Year in college
major_division	Division of the college that major belongs to
study_place	Typical location students studies in
social	Personal political views on social issues
economic	Personal Political views on economic issues
roommates	Number of roommates
six_month_books	Number of books read in the past 6 months
transportation	Primary mode of transportation
dog_pants	How a dog would wear pants
hotdog	Are hotdogs sandwiches?
coffee_tea	What is your preferred caffeinated beverage?
bedtime	What is your typical bedtime?
diet	Do you have any dietary restrictions?
play_wordle	Do you play Wordle?