**Subsetting lists**

There are a few ways to subset a list. Throughout the course we'll mostly use double bracket ([[]]) subsetting by index and by name.

That is, my\_list[[1]] extracts the first element of the list my\_list, and my\_list[["name"]] extracts the element in my\_list that is called name. If the list is nested you can travel down the heirarchy by recursive subsetting. For example, mylist[[1]][["name"]] is the element called name inside the first element of my\_list.

A data frame is just a special kind of list, so you can use double bracket subsetting on data frames too. my\_df[[1]] will extract the first column of a data frame and my\_df[["name"]] will extract the column named name from the data frame.

I've set up a list called tricky\_list in your workspace. Use the function typeof() combined with double bracket subsetting to answer the following questions.

**INSTRUCTIONS**

**100 XP**

What type of object is the...

* 2nd element in tricky\_list?
* Element called x in tricky\_list?
* 2nd element inside the element called x in tricky\_list?

*Note: Use the double bracket notation to extract elements of the list.*

[**Take Hint (-30 XP)**](https://campus.datacamp.com/courses/writing-functions-in-r/a-quick-refresher?ex=11)

**Exploring lists**

Often you won't know exactly what is inside a list. But, you'll need to figure it out to get some useful piece of data. Extracting elements from the output of the names() and str() functions is a great way to explore the structure of a list.

Calling names() on a list will give you names at the top level of the list and str() will give you a full description of the entire list (which can sometimes be a little overwhelming).

tricky\_list has a regression model stored in it. Let's see if we can drill down and pull out the slope estimate corresponding to the wt variable.

**INSTRUCTIONS**

**100 XP**

* Use names() on tricky\_list to guess where the regression model is stored.
* Use names() and str() on the model element of tricky\_list.
* Extract the coefficients element of the model element of tricky\_list.
* Extract the wt element of the coefficients element of the model element of tricky\_list.

*Note: Use the double bracket notation to extract elements of the list.*

[**Take Hint (-30 XP)**](https://campus.datacamp.com/courses/writing-functions-in-r/a-quick-refresher?ex=12)