Now we're almost ready to combine our data sets. Before we do, let's take some time to calculate variables that will be useful in our analysis. We've already discussed one such variable -- a column that totals up the SAT scores for the different sections of the exam. This will make it much easier to correlate scores with demographic factors because we'll be working with a single number, rather than three different ones.

Before we can generate this column, we'll need to convert the SAT Math Avg. Score, SAT Critical Reading Avg. Score, and SAT Writing Avg. Score columns in the sat\_results data set from the object (string) data type to a numeric data type. We can use the [pandas.to\_numeric()](http://pandas.pydata.org/pandas-docs/version/0.17.0/generated/pandas.to_numeric.html" \t "_blank) method for the conversion. If we don't convert the values, we won't be able to add the columns together.

It's important to pass the keyword argument errors="coerce" when we call pandas.to\_numeric(), so that pandas treats any invalid strings it can't convert to numbers as missing values instead.

After we perform the conversion, we can use the addition operator (+) to add all three columns together.

Instructions

* Convert the SAT Math Avg. Score, SAT Critical Reading Avg. Score, and SAT Writing Avg. Score columns in the sat\_results data set from the object (string) data type to a numeric data type.
  + Use the [pandas.to\_numeric()](http://pandas.pydata.org/pandas-docs/version/0.17.0/generated/pandas.to_numeric.html" \t "_blank) function on each of the columns, and assign the result back to the same column.
  + Pass in the keyword argument errors="coerce".
* Create a column called sat\_score in sat\_results that holds the combined SAT score for each student.
  + Add up SAT Math Avg. Score, SAT Critical Reading Avg. Score, and SAT Writing Avg. Score, and assign the total to the sat\_score column of sat\_results.
* Display the first few rows of the sat\_score column of sat\_results to verify that everything went okay.

The answer :

import pandas as pd

data["sat\_results"]["SAT Math Avg. Score"] = pd.to\_numeric(data["sat\_results"]["SAT Math Avg. Score"], errors = "coerce")

data["sat\_results"]["SAT Critical Reading Avg. Score"] = pd.to\_numeric(data["sat\_results"]["SAT Critical Reading Avg. Score"], errors = "coerce")

data["sat\_results"]["SAT Writing Avg. Score"] = pd.to\_numeric(data["sat\_results"]["SAT Writing Avg. Score"], errors = "coerce")

data["sat\_results"]["sat\_score"] = data["sat\_results"]["SAT Math Avg. Score"] + data["sat\_results"]["SAT Critical Reading Avg. Score"] + data["sat\_results"]["SAT Writing Avg. Score"]

data["sat\_results"]["sat\_score"].head()