## Practice with Operators

# Dataset: Sugar Consumption

The data in this exercise reflects the amount of sugar, in grams, consumed for different countries in different years.

In this exercise, we will use operators and Booleans to explore our data. Some of the items have been done for you as examples. Follow the examples and complete the rest of the exercise.

1. Add the countries and the sugar consumed in 2010 lists. Print the result. What happens?
2. Add the first two elements of the countries list. Print the result. What happens?
3. Decide whether the expressions written in the code are True or False. Add the print function to the expressions to check your answers.
4. Create and print another true expression and another false expression using the elements in the lists.
5. Decide whether the Boolean statements written in the code are true or false. Add the print function to the statements to check your answers.
6. Create and print a true Boolean statement that uses or and a false Boolean statement that uses and.

Python Tutorials:

* [Booleans and Logical Operators](https://codehs.com/tutorial/ryan/booleans-and-logical-operators-in-python)
* [Lists](https://codehs.com/tutorial/alex/lists-in-python)

Part 2

"""

Click on the Assignment tab to see the instructions. -->

"""

countries = ["Australia", "Egypt", "Greece", "India", "Jamaica", "Mexico",

"Spain", "United States"]

sugar\_1980 = [152, 71.8, 73.5 ,52.2, 153, 124, 83.7, 158]

sugar\_1990 = [137, 86.6, 87.3, 56, 142, 141, 76.1, 173]

sugar\_2000 = [123, 82.1, 90.4, 63.7, 161, 132, 81, 189]

sugar\_2010 = [126, 81.2, 77.3, 59.9, 137, 136, 83.2, 167]

"""

Add the sugar consumed in 1980 and 1990 lists. Print the result.

What happens?

"""

print()

print(sugar\_1980 + sugar\_1990)

# Your Turn: Add the countries and the sugar\_2010 list. Print the result.

# What happens here?

"""

Add an element from the sugar\_1990 list to an element

from the sugar\_2000 list.

Print the result.

"""

print()

print("First element in sugar\_1990 + first element in sugar\_2000 = "

+ str(sugar\_1990[0] + sugar\_2000[0]))

# Your Turn: Add the first two elements of the countries list.

# Print the result. What happens here?

"""

Decide whether the following expressions are true or false.

Add the print function to the expressions to check your answers.

"""

print()

print(sugar\_1990[0] > sugar\_1980[1]) # prints True

# Take a guess and then add the print function to check

# Guess:

sugar\_2010[0] == sugar\_2000[1]

# Take a guess and then add the print function to check

# Guess:

sugar\_1980[3] < sugar\_1990[5]

# Your Turn: Create and print another true expression and another false

# expression using the elements in the lists.

"""

Decide whether the following Boolean statements are true or false.

Add the print function to the statements to check your answers.

"""

print()

# Take a guess and then add the print function to check

# Guess:

sugar\_1980[3] < sugar\_1990[4] or sugar\_1980[3] == sugar\_2010[5]

# Take a guess and then add the print function to check

# Guess:

sugar\_2000[2] < sugar\_2010[5] and sugar\_1990[0] < sugar\_2010[1]

# Your Turn: Create and print a true Boolean statement that uses 'or'

# and a false Boolean statement that uses 'and'