Computational Skills III: Learning Python


# Hello, World!

<https://www.learnpython.org/en/Hello%2C_World%21>

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| Type the code that will print a string that reads “This line will be printed.”  |
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| Type the code that will print a string with a favorite quote. |
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| What is the message you receive when you do NOT include the correct amount of indentation spaces? |
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| Type the print command to print the line, “Hello, World!” |
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# Variables and Types

## Numbers

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| What is the difference between an integer, and a floating point number?  |
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| Type the two lines of code that will return the number “8” |
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| Which of the two options for defining a floating point number seems easiest for you to remember?  |
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## Strings

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| What happens when you attempt to print the following code (copy and paste it into the tutorial): **mystring = ‘It's the ship that made the Kessel run in less than twelve parsecs.’****print(mystring)** |
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| How would you fix this code? Type the code below that will not return that error: |
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| In the window that begins: **a, b = 3, 4**Write a line of code here that would return the number 7. |
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| Write a line of code that would return the number 14. |
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| Write a line of code that would return the number 12. |
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| Complete the Exercise at the bottom of this page, and type in your changes to the three lines of code below: **mystring = None****myfloat = None****myint = None** |
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# Lists

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| In the lines of code below, WHY does print(mylist[2]) return the number 3? **mylist = []****mylist.append(A)****mylist.append(B)****mylist.append(C)****print(mylist[0]) # prints 1****print(mylist[1]) # prints 2****print(mylist[2]) # prints 3** |
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| Fix the code below to return the number 1**mylist = [1,2,3]****print(mylist[10])** |
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##

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| Type in the code you used to complete this exercise.  |
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# Basic Operations

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| Although we haven’t yet covered order of operations in this class, can you determine which of the following best describes the way that Python calculated the equation in the first box?  |
| A: 1 + 2 = 33 / 4.0 = .753 / .75 | B: 1 + 2 = 33 \* 3 = 99 / 4.0 | C:2 \* 3 = 66 / 4.0 = 1.51.5 + 1 |
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| Does Python use order of operations? |
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| Predict what the answer will be to the following operation: **number = 3 \* 4 / 1 + 2****print(number)** |
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| Now paste this formula into the tutorial. Was your guess correct? Which of the following best describes the way Python calculated this number?  |
| A: 3 \* 4 = 1212 / 1 = 1212 + 2 | B: 3 \* 4 = 121 + 2 = 312 / 3 | C: 1 + 2 = 34 / 3 = 1.331.33 \* 3 |
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| Type in the code to multiply 42 by 83 |
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| Paste in the code to complete this exercise. |
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# String Formatting

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| Type in the code to print “Hello, Professor St. John” |
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| Type in the code to print “Chewbacca is 234 years old” |
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| Paste in the code to complete the exercise.  |
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***If you complete everything above before the end of class (and feel as though you understand all the material above), please continue to work through the rest of the worksheet, as time permits.***

# Basic String Operations

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| Type in the code to count how many times the letter “e” appears in “The Empire Strikes Back”  |
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| NOTE: the code that includes “afewwords” to split the string does not appear to work as written on the site. Try this instead: **astring = "Hello world!"****print("Split the words of astring: %s" % astring.split(" "))** |
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| How would we be able to do a similar function in Excel?  |
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| Paste in the code to complete the exercise.  |
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| Conditions |
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| What does a Boolean operator do?  |
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| Type in the code that would return “Your name is Luke, and you are 19 years old” |
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| Type in the code that would return “Darth Vader is the father of either Luke or Han Solo.”  |
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| Complete the exercise. |
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| Loops |
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| Complete the exercise. |
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