**CODING EXERCISE 1**

**Numbers: Simple Arithmetic**

Write an expression that equals 100.

For example 50+50   or 110-10 .

See if you can use more than one arithmetic operator! Write only one expression and submit only one line of code.

If your expression results in 100, then you should see a success message after you test out your solution :)

10 \*\*2

**QUIZ 1:NUMBERS QUIZ**

Question 1:

Which one of these is a floating point number?

3.2

Question 2:

Which of these will output the result 36?

6\*6

Question 3:

In Python 3, what is the output of 1/2 ?

0.5

**CODING EXERCISE 2**

**Quick Print Check**

Hi,

Later on we will have more in depth tests that will involve you downloading a .ipynb notebook file and answering the questions in it. For now, let's have a quick check in to make sure everything is working so far. This should be a very simple problem for you.

**Your Task:**

**Use what you know about the print() function to print out the phrase "Hello World" . Make sure your capitalization and spacing match.**

# Lines that start with hashtags are comments

# Write your code below that prints out "Hello World"

# Make sure your spacing and capitalization matches.

print('Hello World')

**CODING EXERCISE 3**

**String Indexing**

Write a string index that returns just the letter 'r'  from 'Hello World' .

For example, 'Hello World'[0]  returns 'H'

You should only write one line of code for this. Do not assign a variable name to the string.

# Write your string index below

# Start with 'Hello World'

# and make sure to match spaces and capitalization exactly

"Hello world"[8]

**CODING EXERCISE 4**

**String Slicing**

Use string slicing to grab the word 'ink'  from inside 'tinker'

For example, 'education'[3:6]  returns 'cat'

Remember that when slicing you only go up to *but not including* the end index.

You should only write one line of code for this. Do not assign a variable name to the string.

'tinker'[1:4]

**QUIZ 2:STRINGS QUIZ**

Question 1:

Strings are immutable.

TRUE

Question 2:

If s='hello' what is the output of s[1]

‘e’

Question 3:

If s='Sammy' what is the output of s[2:]?

‘mmy’

**CODING EXERCISE 5**

**Print Formatting**

Write an expression using any of the string formatting methods we have learned (*except* f-strings, see note below) to return the phrase 'Python rules!'

For example, these phrases both return 'I like apples' :

1. 'I like %s' %'apples'
2. 'I like {}'.format('apples')

Your solution should be entered on one line. You can not use variable names, only the strings themselves.

**NOTE: At this time, f-strings won't work!** Udemy Coding Exercises use Python 3.5.2, and f-strings require Python 3.6 or higher.

'Python {}'.format('rules!')

**CODING EXERCISE 6**

**Lists**

Create a list that contains at least one string, one integer and one float.

For example:

[1, 'two', 3.14159]

Note that the order and number of items doesn't matter.

The answer should just be one list on a single line. Don't assign a variable name to the list.

my\_string=[2,'three',1.61]

**QUIZ 3: LISTS QUIZ**

Question 1:

If lst=[0,1,2] what is the result of lst.pop()

**2**

Question 2:

Lists can have multiple object types.

**TRUE**

Question 3:

If lst=['a','b','c'] What is the result of lst[1:]?

[‘b’,’c’]

**CODING EXERCISE 7**

**Dictionaries**

Create a dictionary where all the keys are strings, and all the values are integers.

For example:

{'Monday':19, 'Tuesday':20}

Just write the dictionary on a single line, don't assign a variable name to the dictionary.

{'Apple':30,'Oranges':40,'Watermelon':50}

**QUIZ 4: DICTIONARIES QUIZ**

Question 1:

Is this statement True or False? Dictionaries retain order and are a sequence.

FALSE

Question 2:

Given d={'k1':[1,2,3]}

What is the output of d['k1'][1]

2

Question 3:

Is this statement True or False? Dictionaries are immutable.

Choose the answer below.

FALSE

**QUIZ 5: TUPLES QUIZ**

Question 1:

Tuples have a lot of methods associated with them.

**FALSE**

Question 2:

Tuples are Immutable

**TRUE**

Question 3:

Which of the following is a tuple?

**(1,2,[1,2])**

**CODING EXERCISE 8**

**Sets**

Write an expression that would turn the string 'Mississippi'  into a set of unique letters.

For example:

set('Parallel')

would return the set {'P', 'a', 'e', 'l', 'r'}

You should only write one line of code for this. Do not assign a variable name to the set.

set('Mississippi')

**QUIZ 6: SETS AND BOOLEANS QUIZ**

Question 1:

{1,2,3,4} is an example of a Set.

TRUE

Question 2:

How do you add an element to a set?

.add()  
Question 3:

What is the result of:

set([1,1,2,3])

**{1,2,3}**

Set {}

## Unordered

## Unchangeable

## Duplicates Not Allowed

## List []

## Ordered

## Changeable

## Allow Duplicates

**CODING EXERCISE 9**

**File I/O**

This exercise will require several lines of code.

Write a script that opens a file named 'test.txt' , writes 'Hello World'  to the file, then closes it.

For example, the following code opens a file called 'myfile.txt' , writes 'This is my file' , and closes it:

1. x = open('myfile.txt', 'w')
2. x.write('This is my file')
3. x.close()

**QUIZ 7: COMPARISONOPERATORS QUIZ**

Question 1:

What Boolean will be the output of the following:

2 < 4 TRUE

Question 2:

What Boolean will be the output of the following:

a= 12

b = a-10

a > b

TRUE

Question 3:

What Boolean will be the output of the following:

12 != 12

FALSE

Question 4:

What Boolean will be the output of the following:

2 < 3 > 10

FALSE

Question 5:

What Boolean will be the output of the following:

2 <= 3 >= 1

TRUE