**Formative Assessment 16**

**Test-driven development (115359 & 115384)**

**Readings:**

https://docs.python.org/3/library/unittest.html

https://docs.python-guide.org/writing/tests/

https://jeffknupp.com/blog/2013/12/09/improve-your-python-understanding-unit-testing/

**Video:**

[**https://www.youtube.com/watch?v=6tNS--WetLI**](https://www.youtube.com/watch?v=6tNS--WetLI)

**Data Assignment:**

Write a script called factorial.py that takes a number and returns its factorial.

**Steps:**

Think about which tests you want to do on that function.

Write the tests first.

Test an empty function called factorial - it should fail the tests

Add code for returning the factorial of a number - it should pass for numbers >= 1

Add code for dealing with zero - should pass unit test for zero and for numbers >= 1

Add code for dealing with negative numbers

Add code for dealing with non-numeric input

Take a screenshot test of all the stages as you write the program.

Upload your assignment to Github once you are done.

**References**

https://whatis.techtarget.com/definition/factorial