

Assignment 1A

June XX, 2017

Task 1 - Hello York

This assignment will teach you how to open IDLE and print your name.

Open a new document in IDLE and print Hello York to the screen. Does it run? Make sure you know how to save and open the files you make. Ask if you need help.

Top Tip: The IDLE executes lines of code one at a time, as you type them in after the 'prompt', which looks like three arrows to the right (>>>). So when you type your code there and hit 'Enter', it will run on the next line, and the prompt will appear again for your next line.

Task 2 - Results May Vary

Sometimes, remembering things is pretty important. Variables will let us do that, which you'll be doing in this assignment. Suppose you start an interactive session and **paste in this line to initialize the variables x, y, z:**

```
x = 3; y = 6; z = 7;
```

What will Python print as the value of the following expressions? Try to **find the result manually** and then **compare your result by typing the expression in the interpreter:**

```
x * 2
```

```
x ** 2
```

```
x * z
```

```
y / x
```

Task 3 - Order of Operations

Recall from mathematics, that arithmetic expressions are evaluated according to BIDMAS. Python evaluates arithmetic expressions in a *similar* way.

Try evaluating the following expressions and make sure you understand the results:

$2 + 3 * 5$	$1 - 3 + 5$	$2 * 3 ** 2$
$4 / 2 + 8$	$1 + 2 * 3$	$4 - 3 - 1$

Extension: Try evaluating the example from the slides. What happens?

Task 4 - Boolean Expressions

Sometimes we need to represent truth values. In this assignment, we'll be learning about booleans. **Make sure you understand how these evaluate for different values for p and q:**

$p \text{ and } q$	$\text{not } (p \text{ and } q)$	$(\text{not } p) \text{ and } q$
--------------------	----------------------------------	----------------------------------

Task 5 - Strings

Python allows us to manipulate strings. You can **assign a string to a variable**:

```
word = "Test 123"
```

And then **find its length**:

```
len(word)
```

We can also **repeat it 3 times, and concatenate an exclamation mark**:

```
(word * 3) + "!"
```

