# Computing for mathematics handout 2 - Conditional Statements, flow control and functions

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**Office hours: Thursday 1300-1500**

## What you have learnt this week:

* Variables, variables types etc...
* What we can do to numeric variables;
* What we can do to strings;
* If statements;
* Loops (for and while);
* Functions;
* Comments.

## Saving files

When you save a python script make sure to include the .py extension. This ensures that IDLE will be able to open it.

## Indentation

Indentation is important in Python.

if BOOLEAN: # Check if BOOLEAN is true or false then do everything in this indented block ... ... ... up until the last indent!else: # If BOOLEAN is false then do everything in THIS indented block ... ... ...

## Assignment

In question 21 you used a very clever aspect of Python called 'simultaneous assignment'. This ensured that a and b changed value at the same time.

To do this without simultaneous assignment we would need a temporary variable:

temp = aa = bb = temp + b

## Documentation

**Commenting is extremely important**. You need to stick to the conventions described in questions 22, 23 and 24 of the first lab sheet.

Remember to describe functions like this:

def somefunction(): """ Describe in a sentence or two what your function does Arguments: Describe what variables must be passed to the function Outputs: Describe what outputs will be returned by the function """ Then start the code... # Include in line comments along the way.

## What you should do next:

* **Get started on the second sheet!**
* To make the best use of the lab sessions turn up having finished your sheets;
* If anything is still unclear please come and see me during office hours.