

# Maths and Booleans

```
# Maths
1 + 1    # => 2
8 - 1    # => 7
10 * 2   # => 20
35 / 5   # => 7.0
7 % 3    # => 1
```

```
# Booleans
True    # => True
False   # => False
not True    # => False
not False  # => True
True and False # => False
False or True  # => True
```

- Python has the usual maths operators like other languages
- Integers are whole numbers, floats are decimals
- Integers are coerced to floats on division
- The modulo % operator returns the remainder after division, and is surprisingly useful!
- Booleans are **True** and **False** (note the capital letters)
- Boolean operators are **and**, **not**, **or** (note the lower-case letters)

# Conditionals (if/elif/else)

- Start a conditional clause with **if**, then a statement, then a colon :
- Remember: indentation has meaning in Python!
- The body of each clause is indented to the right
- Use **elif** for else if, and **else** for the default
- Both of these are at the same indentation level as **if**

```
if my_number > 10:  
    print("Your number is bigger than 10.")  
elif my_number < 10:    # This elif clause is optional.  
    print("Your number is smaller than 10.")  
else:                  # This is optional too.  
    print("Your number is exactly 10.")
```