## **Functions & Modules**

## **Functions**

- A chunk of coded that can be called by name to perform a task
- Often require **arguments** or **parameters**
- Arguments may be optional or required
- When a function completes its task, it may **return a value** back to the part of the program that called it

## **Modules**

- Functions included in the Python library
- To use a module, write name of module as a qualifier, followed by dot ( . ), and name of the resource, e.g. math.pi
- Can avoid use of qualifier with each reference by importing individual resources, e.g. from math import pi, sqrt
- Can import all of a module's resources to use without qualifier,
  e.g. from math import \*

## **Programme format and structure**

- 1. Comment with author's name, purpose of program, and other relevant info
- 2. Import any modules needed by program
- 3. Initialise important variables, suitable commented
- 4. Prompt user for input data and save the input data in variables
- 5. Process inputs to produce results
- 6. Display results