

Summary

- Multiple variables can be initialized in a single statement using a sequence of = assignments
- A Python list is an array variable that can store multiple items of data in sequentially numbered elements that start at zero
- Data stored in a list element can be referenced using the list name followed by an index number in [] square brackets
- A list element can have more than one index to represent multiple dimensions, such as X and Y coordinates
- List variables have a number of methods that can be dot-suffixed to the list name for manipulation
- The **len()** function returns the length of a specified list
- An individual list element can be deleted by specifying the list name and element index number to the Python **del** keyword
- A Python tuple is an immutable list whose values can be assigned to individual variables by “sequence unpacking”
- Data stored in a tuple element can be referenced using the tuple name followed by an index number in [] square brackets
- A Python set is an unordered collection of unique elements whose values can be compared and manipulated by its methods
- Data stored in a set cannot be referenced by its index number
- Set variables have methods that can be dot-suffixed to the list name for manipulation and comparison
- The Python built-in membership **in** operator can be used to seek a value within a set
- A set can be converted to a regular list using the **list()** function to allow reference of element data by index number
- A Python dictionary is a list of key:value pairs of data in which each key must be unique
- Data stored in a dictionary element can be referenced using the dictionary name followed by its key in [] square brackets