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