Set ADT

- ADT: abstract data type. Basically, some expectations we can have for a data structure, as to what operations it supports
- Set: Mathematical meaning of set, says whether something is present or not (no duplicates)
- Set ADT:
  - Insert(element) ⇒ (amortized) O(1)
  - Remove(element) ⇒ (amortized? depends on implementation) O(1)
  - Contains(element) ⇒ (expected) O(1)

Sets in Python

- You can cast data to set using the set(...) function
- By default, empty curly braces denote a dictionary: {}
- But if you put items inside them like a list, then it becomes a set:

  {1, 2, 3, 2, 3, 1} # this is a set containing only 1, 2, 3

- Convenient way to remove duplicates from data:

  ```
  myList = [1, 2, 3, 2, 3, 4, 5, 4, 3, 6, 7]
  myListNoDupes = list(set(myList))
  ```