Dictionaries

{}  

A dictionary is a data structure for storing pairs of values.

Values can be accessed by their keys.

Like lists, dictionaries are mutable.

Keys are unique and cannot be repeated within a dictionary.

Keys must be immutable and cannot be a list or dictionary.

Values are, however, mutable.
Dictionaries

Methods

- d.items()
- d.keys()
- d.values()
- d.get(key)
- d.pop(key)
- d.popitem()
- d.clear()
- d.copy()
- d.fromkeys(s, t)
Lists vs. Dictionaries

Order
- Lists are ordered
- Dictionaries are unordered

Access
- Lists require a numeric index to access individual items
- Dictionary values are accessed by their unique key

General Guideline
- If order matters, use a list
- If you need to access values with a unique key, use a dictionary
**Tuples**

()  

(1, 2.0, 'three')

A tuple is an immutable sequence of 0 or more values

Enclosed in round brackets, items separated by a comma

Tuples with a single item must be followed by a comma: (x,)

Once created, it cannot be changed, which can help prevent errors

Use indexing and slicing to access individual elements
**Sets**

`set()`

A set is a collection of 0 or more items with no duplicates.

A good way to remove duplicates from a sequence.

Two categories: mutable sets and immutable frozensets.
Introduction to Computer Programming
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Data Structures
Lists and Dictionaries