

```
# How to find the number of elements in a dictionary
person = {
    "name" : "Betty",
    "age" : 30,
    "gender" : "female"
}
print(len(person))
#How to ucheck if an element exists in a dictionary
print("city" in person)
```

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Qn. Compare and contrast the usage of lists, tuples, sets, and dictionaries in Python, highlighting their key characteristics and when to use each.

Lists, tuples, sets and dictionaries are all used to store multiple items in a single variable.

A list is a collection of items in a particular order. Lists are created using square brackets [].

List items are ordered, changeable, allow duplicates and are indexed.

Lists are used when we want to have ordered, changeable and duplicate items.

One uses lists when they want to store a collection of related values

A tuple is a collection of ordered and unchangeable items. Tuples are created using parentheses ().

Tuple items are ordered, unchangeable, allow duplicates and are indexed.

Tuples are used when one wants to store data that should remain constant, such as coordinates, configuration strings or data that should not be accidentally modified.

A set is a collection of unordered and changeable items. A set is created using curly brackets {}.

Items in a set are unordered, unchangeable, without duplicate members and unindexed.

Sets are used when one wants to store a collection of unique elements without any duplicates.

A dictionary is a collection of unordered and changeable items. A dictionary is created using curly brackets {}. A dictionary does not have duplicates and each item in a dictionary has a key and a value.

Dictionaries are often used to create mappings between different entities. For example you can use a dictionary to map a person's name to their age.