

List vs Tuple vs Set - Methods & Properties

Comparison of List, Tuple, and Set

Do Same Methods Apply on List, Tuple, and Set?

No! They are different data types, so not all methods apply to all.

Comparison of Methods & Properties

Method / Feature	List	Tuple	Set
Mutable	Yes	No	Yes
Ordered	Yes	Yes	No
Allows Duplicates	Yes	Yes	No
.append(x)	Yes	No	No
.extend(x)	Yes	No	No
.insert(i, x)	Yes	No	No
.remove(x)	Yes	No	Yes
.pop()	Yes	No	Yes
.clear()	Yes	No	Yes
.add(x)	No	No	Yes
.sort()	Yes	No	No
.index(x)	Yes	Yes	No
.count(x)	Yes	Yes	No
Supports Iteration	Yes	Yes	Yes

Summary:

- List: Ordered, mutable, duplicates allowed, supports many methods.
- Tuple: Ordered, immutable, supports only .count() and .index().
- Set: Unordered, only unique items, supports .add(), .remove(), etc.

Quick Examples:

List vs Tuple vs Set - Methods & Properties

List

```
l = [1, 2, 3]
```

```
l.append(4) # Yes
```

```
l.remove(2) # Yes
```

Tuple

```
t = (1, 2, 3)
```

```
# t.append(4) Error
```

Set

```
s = {1, 2, 3}
```

```
s.add(4) # Yes
```

```
s.remove(2) # Yes
```