

# List Functions:

1. `append()`: Adds an element to the end of the list.
2. `insert()`: Inserts an element at a specified index in the list.
3. `extend()`: Appends elements from another iterable (list, tuple, etc.) to the end of the list.
4. `remove()`: Removes the first occurrence of a specified value from the list.
5. `pop()`: Removes and returns an element from a specified index (or the last element if no index is provided).
6. `index()`: Returns the index of the first occurrence of a specified value in the list.
7. `count()`: Returns the number of occurrences of a specified value in the list.
8. `sort()`: Sorts the elements of the list in ascending order.
9. `reverse()`: Reverses the order of elements in the list.
10. `copy()`: Creates a shallow copy of the list.
11. `clear()`: Removes all elements from the list.
12. `len()`: Returns the number of elements in the list.
13. `max()`: Returns the maximum value from the list (works for numerical or alphabetical values).
14. `min()`: Returns the minimum value from the list (works for numerical or alphabetical values).
15. `sum()`: Returns the sum of all numerical elements in the list (if applicable).
16. `join()`: Joins elements of a list into a single string using a specified delimiter.
17. `split()`: Splits a string into a list of substrings based on a specified delimiter.

## Questions

1. What function can you use to find the length of a list?
2. How can you add an element to the end of a list using a function?
3. Describe the purpose of the `list.append()` function. Provide an example.
4. What is the outcome of using the `list.remove()` function on a list containing duplicate elements?
5. Explain the purpose of the `list.insert()` function. Provide an example.
6. What function can you use to count the occurrences of a specific element in a list?
7. How can you reverse the order of elements in a list using a function?

8. Describe the behavior of the `list.sort()` function. Provide an example.
9. Explain the purpose of the `list.extend()` function. Provide an example.
10. How can you find the maximum and minimum values in a list using functions? Provide an example for each.
11. Describe the purpose of the `list.pop()` function. Provide an example.
12. Give difference between count and index.