1. What exactly is []?

**Answer:**

[] 🡪 empty list

2. In a list of values stored in a variable called spam, how would you assign the value 'hello' as the third value? (Assume [2, 4, 6, 8, 10] are in spam.)

**Answer:**

spam[2]=’hello’

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

3. What is the value of spam[int(int('3' \* 2) / 11)]?

**Answer:**

🡪 spam[int(int(‘33’)/11)]

🡪 spam[int(33/11)]

🡪 spam[int(3.0)]

🡪 spam[3]

* **‘d’**

4. What is the value of spam[-1]?

**Answer:**

‘d’

5. What is the value of spam[:2]?

**Answer:**

[‘a’,’b’]

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.

6. What is the value of bacon.index('cat')?

**Answer:**

bacon.index('cat') 🡪 index is 1

7. How does bacon.append(99) change the look of the list value in bacon?

**Answer:**

[3.14, 'cat,' 11, 'cat,' True,99]

8. How does bacon.remove('cat') change the look of the list in bacon?

**Answer:**

[3.14, 11, 'cat,' True]

9. What are the list concatenation and list replication operators?

**Answer:**

* The operator for list concatenation is ‘+’.
* The operator for list replication is ‘\*’.

10. What is difference between the list methods append() and insert()?

**Answer:**

* append() 🡪 It will add values only to the end of a list
* insert() 🡪 It will add values anywhere in the list.

11. What are the two methods for removing items from a list?

**Answer:**

* remove()
* pop()
* del

12. Describe how list values and string values are identical.

**Answer:**

Both list and strings can be passed to len(),have indices and slices,be used in for loops,be concatenated or replicated, and be used with the in and not in operators.

13. What's the difference between tuples and lists?

**Answer:**

**List**

* [] or list()
* List are mutable.

**Tuple**

* () or tuple()
* Tuples are immutable.

14. How do you type a tuple value that only contains the integer 42?

**Answer:**

* (42) 🡪 Integer
* (42,) 🡪 tuple

15. How do you get a list value's tuple form? How do you get a tuple value's list form?

**Answer:**

* list() 🡪 to convert tuple to list
* tuple() 🡪 to convert list to tuple

16. Variables that "contain" list values are not necessarily lists themselves. Instead, what do they contain?

**Answer:**

They contain references to list values.

17. How do you distinguish between copy.copy() and copy.deepcopy()?

**Answer:**

* A shallow copy (copy.copy()) constructs a new compound object and then (to the extent possible) inserts references into it to the objects found in the original.
* A deep copy(copy.deepcopy()) constructs a new compound object and then, recursively, inserts copies into it of the objects found in the original.