1. What exactly is []?

We can define Empty list within []

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.)

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

spam = [2, 4, 6, 8, 10]

spam[2] = 'hello'

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

'3' \* 2 evaluates to '33'.

int('33') converts the string '33' to an integer 33.

int('33') / 11 evaluates to 3.0.

int(int('33') / 11) converts the float 3.0 to an integer 3.

spam[3] is the fourth value in the list, which is 4.

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

The index -1 refers to the last item in the list.

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

The value of spam[:2] is [2, 4]

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

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

The value of bacon.index('cat') is 1

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

bacon.append(99) would add the integer 99 to the end of the list bacon

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

bacon.remove('cat') would remove the first occurrence of the string 'cat' from the list bacon.

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

can use the + operator to concatenate two lists.

use the \* operator to replicate a list

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

append() adds an item to the end of a list, whereas insert() inserts an item as specified

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

Remove() and del()

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

similarity between them are ordered collections of elements.

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

* Tuples used to store related pieces of information, while lists are used for collections of data that can be changed.

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

my\_tuple = (42,)

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

convert a list to a tuple using the `tuple()` function and a tuple to a list using the `list()` function

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

they contain **references** to list values

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

the copy module provides two methods for copying objects: copy.copy() and copy.deepcopy()