

CS:1210 (22C:16) Quiz 7 Version (b)

You have 15 minutes to complete this quiz. Please put away your books, notes, and all electronic devices

1. Suppose that the list `L` equals `[100, ["ok", "is"], 1000, [1, 2], [[1, 2], [2, 3]], 1000]`. Write down the value of `L` after each of these Python statements. For each problem start with the (same) value of `L` given above.

(a) `L.insert(3, 200)`

(b) `L.remove(1000)`

(c) `L.extend(2*L[4][0])`

(d) `L[L.index([1, 2])] = L[0]`

(e) `L[4][0][1] = L[len(L)-1]`

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2. Write a function that takes a list L of floating point numbers and replaces each number in the list by the average of itself and its two neighbors. For example, element $L[2]$ would be replaced by $(L[1] + L[2] + L[3])/3$. Note that $L[0]$ has no neighbor on the “left” and would be replaced by $(L[0] + L[1])/2$. Similarly, if the length of L is n then the last element, namely $L[n-1]$, has no neighbor on the “right” and would be replaced by $(L[n-2] + L[n-1])/2$.

The function does not return anything and it should just modify L in-place.