

Scientific Programming

Lecture AE3 – Exercises

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2017/11/13

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Problems – Lists

- Write a function to find the list in a list of lists whose sum of elements is the highest

$$[[1, 2, 3], [4, 5, 6], [10, 11, 12], [7, 8, 9]] \Rightarrow [10, 11, 12]$$

- Write a function that takes a list of list of integers as input, and returns a new list where duplicate lists are removed.
 - Version 1: two lists are duplicates if they are equal

$$[[10, 12], [10, 12], [8, 14]] \Rightarrow [[10, 12], [8, 14]]$$

- Version 2: two lists are duplicates if their sum is equal:

$$[[10, 12], [10, 12], [8, 14]] \Rightarrow [[10, 12]]$$

- Write a program that takes a recursive list RL , i.e. a list that contain integers, lists or other recursive lists, and returns the depth of RL , i.e. the maximum number of lists nested in each other.

$$[[2, [2, 3]], [2, 3, [4]]] \Rightarrow 4$$