

Alex Mosseri
Lab4

Written Problem

3)

a) $O(n)$

b) $O(n^2)$

4.

a)

The output for sum_list1 is as follows:

('sum_list1, low=', 0, ', high=', 7)

('sum_list1, low=', 1, ', high=', 7)

('sum_list1, low=', 2, ', high=', 7)

('sum_list1, low=', 3, ', high=', 7)

('sum_list1, low=', 4, ', high=', 7)

('sum_list1, low=', 5, ', high=', 7)

('sum_list1, low=', 6, ', high=', 7)

('sum_list1, low=', 7, ', high=', 7)

and the total sum is 36.

The output for sum_list2 is as follows:

('sum_list2 low=', 0, ', high=', 7)

('sum_list2 low=', 0, ', high=', 3)

('sum_list2 low=', 0, ', high=', 1)

('sum_list2 low=', 0, ', high=', 0)

('sum_list2 low=', 1, ', high=', 1)

('sum_list2 low=', 2, ', high=', 3)

('sum_list2 low=', 2, ', high=', 2)

('sum_list2 low=', 3, ', high=', 3)

('sum_list2 low=', 4, ', high=', 7)

('sum_list2 low=', 4, ', high=', 5)

('sum_list2 low=', 4, ', high=', 4)

('sum_list2 low=', 5, ', high=', 5)

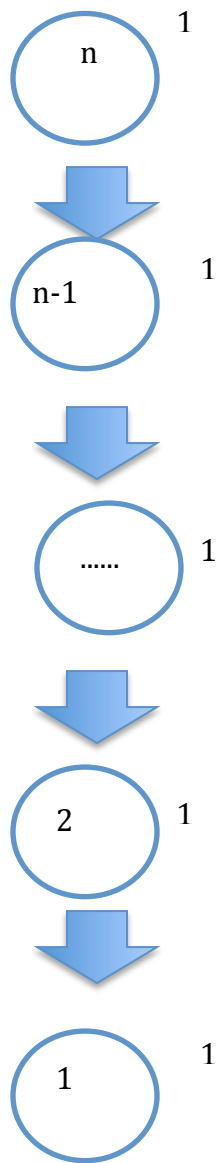
('sum_list2 low=', 6, ', high=', 7)

('sum_list2 low=', 6, ', high=', 6)

('sum_list2 low=', 7, ', high=', 7)

and the total sum is 36.

b)
Sum_list1



$\Theta(n^2)$

Sum_list2:

Theta(logn)

