# **Laboratory practice No. 3: Linked lists and dynamic vectors.**

(As for the arrangement that was made with Mauricio, this is only point 4, the midterm practice for September 22, the rest will eventually be added, and this note, deleted.)

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**3) Practice for final project defense presentation**

**3.1**

**3.2**

**3.3**

**3.4**

**3.5**

**3.6**

**3.7**

**3.8**

***4) Practice for midterms***

***4.2*** c) O(n)

* 1. Line 21should be: output.append(stack.pop()).append(' ');

This is because in the line pop will get rid of the number in the stack, put it in output and add a space after it.

The asymptotic complexity for the previous algorithm is O(n^2)

* 1. a) [7, 8, 3, 1, 2, 9] This is because the algorithm takes the repeated numbers and gets rid of them.
  2. b) O(n^2)
  3. c) O(n) and O(1)

***4.10.1*** d) O(n)

***4.10.2*** a) 6

***4.10.3*** b) O(n)

***4.11.1*** a) O(n^2)

***4.11.2*** b) O(n)

***4.12.1*** while(s1.size<1);

***4.12.2*** s2.push(s1.pop());

***4.12.3*** return s2;

***4.13.1*** O(n^3)

***4.13.2*** O(n^2)

***5) Recommended reading (optional)***

Mapa conceptual

**6)** **Team work and gradual progress (optional)**

***6.2***

***6.3***