Laboratory practice No. 2: Big O notation

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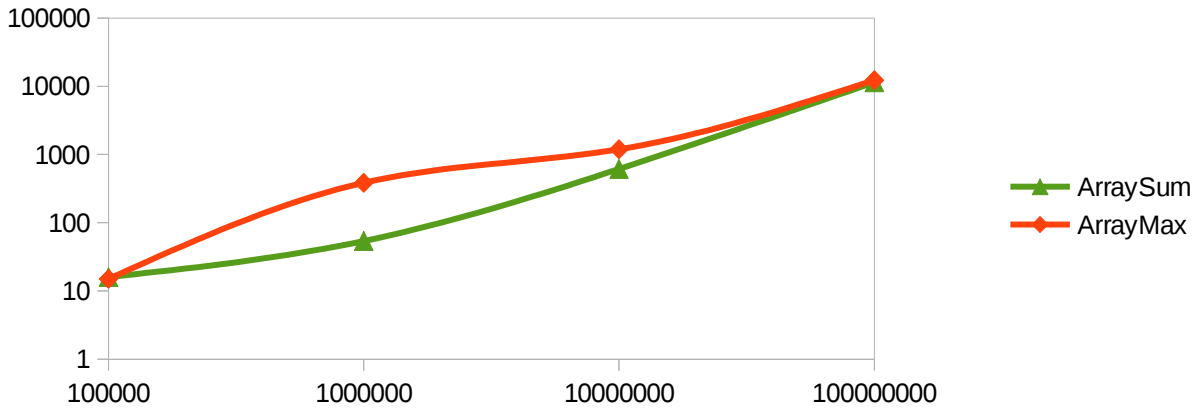
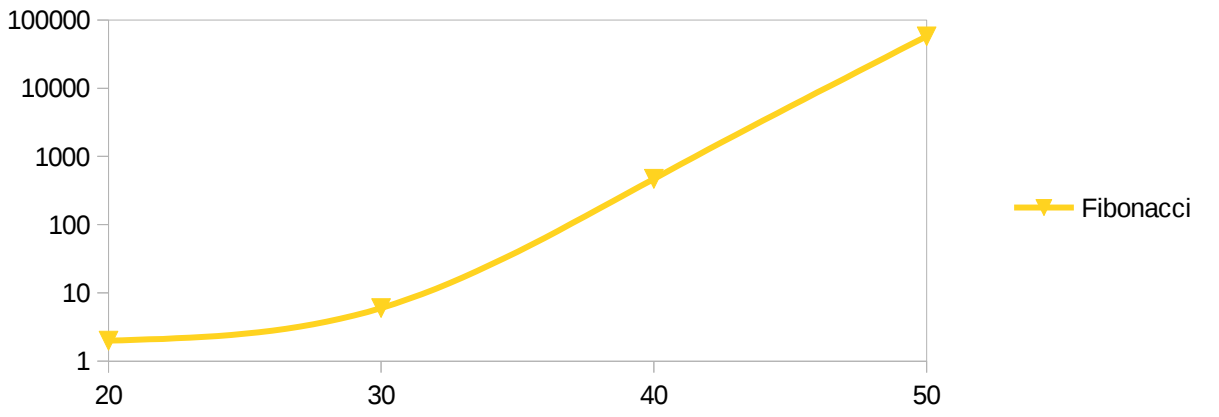
3) Practice for final project defense presentation

1. N para fibonacci entre parentesis

	N = 100.000 (20)	N = 1'000.000 (30)	N = 10'000.000 (40)	N = 100'000.000 (50)
R Array Sum	16mS	54mS	615mS	11434mS
R Array Maximun	15mS	385mS	1194mS	12320mS
R Fibonacci	2mS	6mS	470mS	57701mS

2 .





3. The data in the table is represented in the graphs of 3.2. We know that arraySum, and arrayMax are both O(n), and fibonacci is O(2^n). As we can see in the graphs, the first two methods are lineal, and the third one is exponential. In conclusion the tests with different sizes for the three algorithms make proof that the theoretical complexity is approximated to the reality.

4.

	N = 100.000	N = 1'000.000	N = 10'000.000	N = 100'000.000
Array Sum				
Array Maximum				
Insertion sort				
Merge sort				

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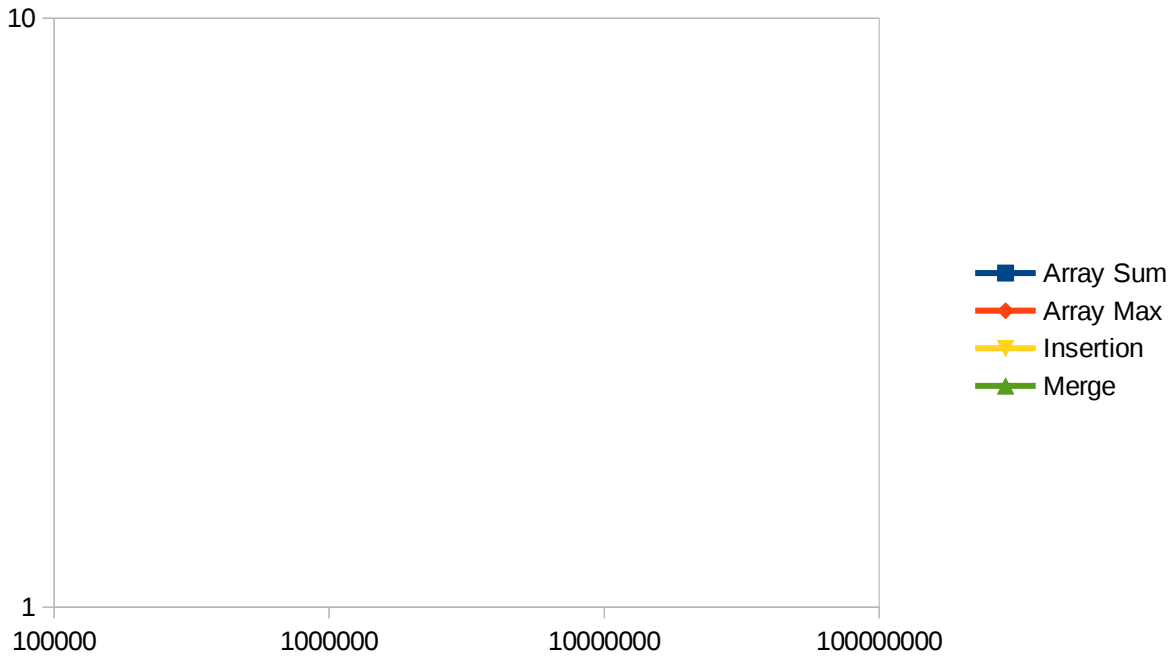
5.



6.
7.
8.
9.
10.
11.//complejidad
12.

4) Practice for midterms

1. *a*
2. *b*
3. *length-1*
4. *x+1, a[i]*

5) Recommended reading (optional)

a) Title

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b) Main ideas
c) Concept map

6) Team work and gradual progress (optional)

a) Meeting minutes
b) History of changes of the code
c) History of changes of the report

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