


Algorithmics	Student information	Date	Number of session
	UO: 294665	14/03/2024	5
	Surname: Garcia Castro	 Escuela de Ingeniería Informática Universidad de Oviedo	
	Name: Gonzalo		



Activity 1. [Algorithm of Prim]

The time complexity of my implementation of Prim's algorithm is $O(n^3)$ as it is a while loop of $O(n)$ with three for loops anidated, but two of these for loops are at the same level so the final complexity is $O(n^3)$.

N	T Prim (seconds)
256	0,889
512	6,542
1024	78,555
2048	490,369 (8 minutes)
4096	Oot

In most of the cases yes, but in $n = 1024$ and $n = 2048$ the time is so much the expected.

I have revised the code checking any error in the complexity, but I didn't see anything strange so its maybe because the language used, or maybe because I'm not considering any clue that interferes in the time complexity. I'm checking that im not using any function as not in to not increase the time complexity.