

Algorithmics	Student information	Date	Number of session
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## Activity 1. Greedy Algorithm

The complexity of the algorithm is  $O(n \log n)$  although you could do a  $O(n)$  algorithm without ordering the nodes at the beginning as the sort method used to order the nodes is  $O(n \log n)$  but this would give a worse solution.

n	GreedyTimes
8	1,56
16	1,00
32	1,56
64	3,00
128	5,56
256	11,44
512	22,44
1024	47,11
2048	100,44
4096	195,78
8192	419,44
16384	977,11
32768	2.392,11
65536	6.510,33

On this table you can see that each time you multiply  $n$  by 2, the times are multiplied by 2 and a little more.