

Algorithmics	Student information	Date	Number of session
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Activity 1. Tromino Times

1- Create the table with times of the Tromino

Obtained	Values
n	Time
16	0
32	1
64	0
128	1
256	2
512	8
1024	6
2048	34
4096	125
8192	537
16384	2238

Theoretical	Values
n	Time
16	#
32	0
64	4
128	0
256	4
512	8
1024	32
2048	24
4096	136
8192	500
16384	2148

a. **What should be the time complexity of the algorithm?**

The time complexity of the algorithm is $O(n^2)$

b. **Check if the time obtained in the previous section does or does not meet the theoretical complexity of the algorithm**

More or less the values are similar when the n start to increase and as we cannot see bigger values because after $n = 16384$ we got a Java heap space exception we can assume that the obtained values meet the expectations.

The small variations maybe are caused by some programs I have opened in the background while doing the measurements