


Algorithmics	Student information	Date	Number of session
	UO: 293693	08/02/2024	0
	Surname: Castro Álvarez	 Escuela de Ingeniería Informática Universidad de Oviedo	
	Name: Ana		



Activity 2. Factor 1: problem size

RAM: 8 GB

CPU: Intel Core i7-4790 3.6 GHz

N	Time
10000	2,427
20000	9,693
40000	39,743
80000	OoT
160000	OoT
320000	OoT
640000	OoT

Activity 3. Factor 2: computer performance

RAM: 8 GB

CPU: Intel Core i7-4790 3.6 GHz

N	Time
10000	2,671
20000	10,587
40000	42,901
80000	OoT
160000	OoT
320000	OoT
640000	OoT

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Activity 4. Factor 3: implementation environment

N	Time Java	Time Python
10000	0,124	2,427
20000	0,472	9,693
40000	1,852	39,743
80000	7,055	OoT
160000	30,120	OoT
320000	OoT	OoT
640000	OoT	OoT

Activity 4. Factor 4: algorithm that is used

N	Time PythonA1	Time PythonA2	Time PythonA3
10000	2,427	2,671	0,124
20000	9,693	10,587	0,472
40000	39,743	42,901	1,852
80000	OoT	OoT	7,055
160000	OoT	OoT	30,120
320000	OoT	OoT	OoT
640000	OoT	OoT	OoT

N	Time JavaA1	Time JavaA2	Time JavaA3
10000	0,124	0,300	0,139
20000	0,472	1,176	0,517
40000	1,852	3,905	2,132
80000	7,055	15,342	7,577
160000	30,120	57,923	30,116
320000	OoT	OoT	OoT
640000	OoT	OoT	OoT

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Without optimizations

N	Time JavaA1	Time JavaA2	Time JavaA3
10000	1,239	0,124	0,083
20000	4,521	0,478	0,271
40000	17,212	1,810	0,921
80000	OoT	6,627	3,863
160000	OoT	24,597	13,748
320000	OoT	OoT	48,122
640000	OoT	OoT	OoT