Activity 1. [Factor 1(problem size)]

n	t(ms)
10000	1531
20000	6398
40000	25409
80000	102244
160000	OoT
320000	OoT
640000	OoT

Activity 2. [Factor 2 (computer power)]

n	t(ms)		n	t(ms)
10000	1531		10000	3773
20000	6398		20000	13469
40000	25409		40000	58798
80000	102244		80000	OoT
160000	OoT		160000	OoT
320000	OoT		320000	OoT
640000	OoT		640000	OoT
CPU: 12th Gen Intel(R) Core(TM) i5-12400 2.50 GHz RAM: 16,0 GB			CPU: Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz 3.40 GHz RAM: 16,0 GB	

Activity 3. [Factor 3 (implementation environment)]

n	t(ms)
10000	137
20000	547
40000	2075
80000	8070
160000	31216
320000	OoT
640000	OoT

These times are much faster than the ones for the python problam, this is due to the JVM.

Activity 4. [Factor 4 (algorithm that is used)]

Python			
n	A1 (ms)	A2 (ms)	A3 (ms)
10000	1531	447	227
20000	6398	1568	834
40000	25409	6033	3244
80000	102244	21951	12139
160000	OoT	101154	51960
320000	OoT	OoT	OoT
640000	OoT	OoT	OoT

Java (without optimization)			
n	A1(ms)	A2 (ms)	A3 (ms)
10000	667	74	72

20000	2791	494	149
40000	12493	1182	550
80000	50884	3689	2251
160000	OoT	14698	7845
320000	OoT	49633	30544
640000	OoT	OoT	19643

Java (with optimization)			
n	A1 (ms)	A2 (ms)	A3 (ms)
10000	137	22	15
20000	547	51	28
40000	2075	194	111
80000	8070	783	394
160000	31216	2691	1417
320000	OoT	10107	5482
640000	OoT	38074	19643