

Lab 3

Test Number	Matrix Size	Exec Time (sec)	Theoretical time (sec)				
1	10	0,000008	0,0000006				
2	100	0,001297	0,0005407				
3	500	0,087085	0,0667869		$T_1 = (2Size^3 / 3 + Size^2) \cdot \tau$		
4	1000	0,533496	0,5334960		pivot case: 4		
5	1500	1,798209	1,7996501				
6	2000	4,313506	4,2647718				
7	2500	8,437615	8,3283839				
8	3000	14,767370	14,3900092				
PC Exec							
Matrix Size	Serial Algorithm	Parallel Algotirhm					
		2 processors		4 processors			
		Time	Speed Up	Time	Speed Up		
10	0,000008	0,000705	0,01135	0,000853	0,00938		
100	0,001297	0,000724	1,79144	0,000331	3,91843		
500	0,087085	0,046335	1,87946	0,021176	4,11244		
1000	0,533496	0,271561	1,96455	0,162456	3,28394		
1500	1,798209	0,921764	1,95083	0,549201	3,27423		
2000	4,313506	2,191333	1,96844	1,309418	3,29422		
2500	8,437615	4,290815	1,96644	2,586868	3,26171		
3000	14,767370	7,450938	1,98195	5,013614	2,94545		
Cluster Exec							
Matrix Size	Serial Algorithm	Parallel Algotirhm					
		2 processors		4 processors		8 processors	
		Time	Speed Up	Time	Speed Up	Time	Speed Up
10	0,000008	0,0000510	0,15686	0,000212	0,03774	0,000467	0,01713
100	0,001297	0,0012130	1,06925	0,001387	0,93511	0,001256	1,03264
500	0,087085	0,1146750	0,75941	0,069877	1,24626	0,041006	2,12371
1000	0,533496	0,9072920	0,58801	0,553777	0,96338	0,318869	1,67309
1500	1,798209	3,0302190	0,59343	1,738321	1,03445	0,992927	1,81102
2000	4,313506	7,2596990	0,59417	4,073796	1,05884	2,366090	1,82305
2500	8,437615	14,1629350	0,59575	7,966657	1,05912	4,539269	1,85880
3000	14,767370	24,5967150	0,60038	13,878321	1,06406	7,584900	1,94694