

Part 3

N	P	Serial execution time (microseconds)	Parallel execution time (microseconds)
64	2	510	207
1000	2	81829	985
64	4	802	414
1000	4	145495	486
64	8	1358	637
1000	8	261142	982
64	16	2423	3392
1000	16	495392	4091
64	32	4612	6688
1000	32	928028	19861

What do you observe? Parallel execution time is faster than serial execution time. Also, when lots of data can be dealt with, the parallel execution is much faster.

Why? Pthread has used for Parallel execution. Pthread creates processors fast, doesn't use lots of memory and can share memory between threads. Therefore, pthread shows faster results than serial execution.