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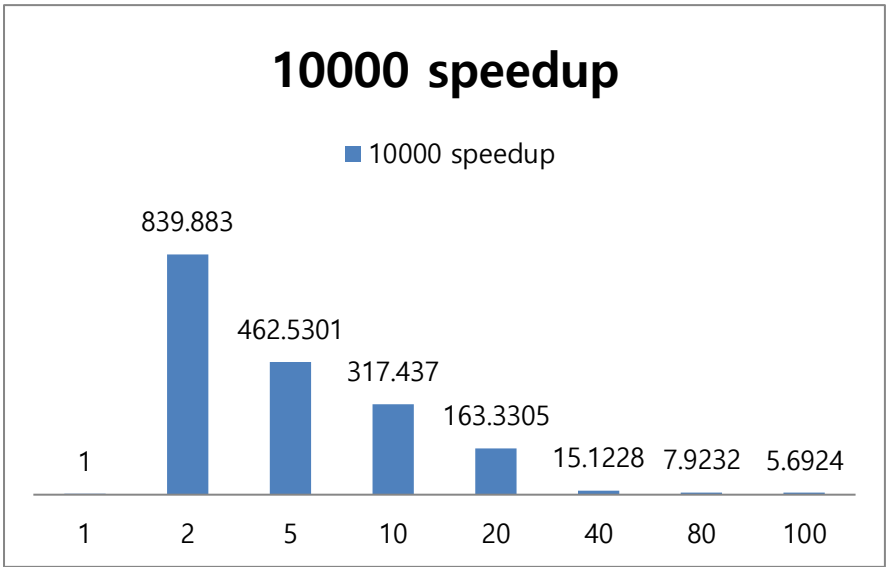
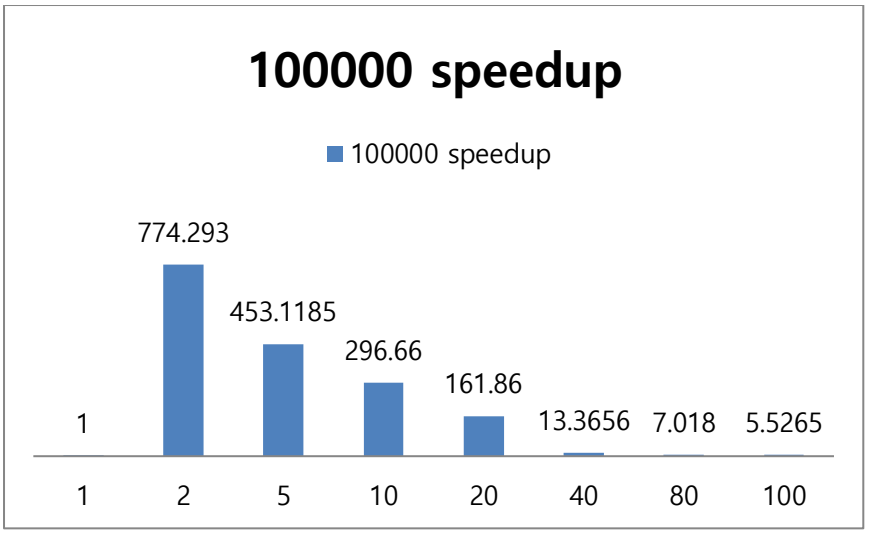
Dhk371




The first thing we notice about the 10000 graph is that the speed up decreases with increased number of threads( after 2). This could be because the performance increase gained by increasing the number of threads and dividing the work among more threads was not enough to overcome the performance lost due to the cost of forking and joining of these increased number of threads( not enough data to have a performance gain that upsets the increased cost). Another contributor for the decrease of speedup with increased amount of threads might be cache coherency; with increased number of threads, there is going to be an increased number of threads writing on the same cache line that increases the number false sharing and access to the remote memory.




The reason for the decrease in speedup as we increase the number of threads is the same as the 10000, but the reason why 100000 has an decrease in speedup in comparison to 10000 could also be due to increased cache coherency problem as each thread has more data distributed that could potentially lead to more false sharing.