GPGPU Practical 1

*All of my CPU times are measured as averages using my time_program.c, which I will include in my submission. I took an average of 100 runs.
*I used nvvp for the kernel duration measurements
*I used 99999744 iterations to calculate Pi as this number works better with the number of threads. PMCPi.cu automatically uses this number if supplied with the argument 100000000, so chose to use it for MCPi.c for consistency.

For the sample code MCPi.c with 99999744 iterations
Estimate of pi: 3.14167
Average execution time: 2.43 seconds

For my first attempt using GPU (PMCPiv1.cu) with 99999744 iterations
Estimate of pi: 3.141549
Average execution time: 0.08 seconds
Average duration setup_kernel: 1.27353 ms
Average duration generate_kernel: 21.76258 ms

I'm not sure how to optimise these further as they are achieving occupancies of 84% and 99.6% respectively. I've tried adjusting the thread and block sizes, while keeping the total threads constant, and did not see any improvement. I tried generating the states in the generate_kernel and removing the setup_kernel, (and adjusting the rest of the code accordingly) but this also had no effect.