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How does the running time vary with the number of threads on your personal computer?
How do you explain the trend?

There is a marginally decreasing trend with my run times . From 1 to 2 threads is where we see the biggest speed increase, reducing time by over 4000 ms. However, it tapers down as the number of threads increase until we get to 8 threads where it plateaus and seesaws within the 2600s ranges. This makes sense because my CPU is i7-6700 with 4 cores.

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Running Monte Carlo simulation with n = 1073741824 samples..
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n threads | pi estimate | time (ms)
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    1 |      3.14158 | 12315
    2 |      3.14157 |  8063
    4 |      3.14157 |  4350
    8 |      3.14168 |  2606
   16 |      3.14154 |  2697
   32 |      3.14160 |  2754
   64 |      3.14153 |  2658
  128 |      3.14159 |  2616
  256 |      3.14161 |  2644
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```