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The experiment was run on a laptop that has a Ryzen 9 12 core processor, and RTX470 gpu, and 32gb of RAM. Threads 1 - 8 were tested 10 at a time, using the value 100,000 for the Collatz generation. In our diagram of time taken it is clear that the graph takes a logarithmic look as threads increase. Turning the locks off also showed a major decrease in time as threads increased. While thread count was low, change was negligible, but by the time thread count was 8 it was roughly halved. Y Axis is time taken, and X Axis is threads used. In our collection of frequencies, although I had issues trying to get it to graph form, it seems to have a bell curve, with the higher and lower stopping times having very few and center stopping times increasing in counts. From our analysis we draw that while maybe increasing threads on lower count numbers might result in a slight increase in time, it might curb the time taken for bigger values due to its logarithmic properties.

vs. Measured Times with n Threads(100000)

