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FFT Explanations

**Preface:**

We ran problem sizes of 2048, and 16384.

We used 1 Block, 4 Blocks and Adaptive Blocks (Number of blocks required to calculate in one go). For example, using the problem size of 2048 we would use 2 Blocks utilizing 1024 threads each instead of using 4 blocks utilizing 512 threads each.

**Analysis:**

Problem size of 2048 ran a little bit faster using 4 blocks with 512 threads per block than 2 blocks with 1024 threads per block… [04854 Seconds to .005847 Seconds]. We obtained a maximum speedup of 43.5 on problem size 2048.

Problem size of 16384 ran a lot faster using 16 blocks with 1024 threads per block than 4 blocks with 1024 threads per block running the kernel 4 times… [.086321 Seconds to .14778 Seconds]. We obtained a amazing speedup of 156.59 on problem size 16384.