# Technical Analysis

**Recursive and DP FFT:**

The graph clearly suggests that even though the DP FFT is faster but there is not much difference between the performance of the recursive and DP approach. The graph of both is almost parallel but DP is slightly faster than the recursive approach. Also DP can computer for more number of coefficients as it does not use as much memory as the recursive approach.

**Vertical Offset between the two method :**

For 256 number of coefficients, the vertical offset is 7.555-7.024 = 0.52 which is 52%.

**Comparison between the FFT(recursive and DP approach) with the school book algorithm, three multiply and four multiply algorithm:**

The school book algorithm leads the FFT algorithms but only up to a certain point i.e. certain number of coefficients, and then the FFT algorithms take the sole lead. The point where the three sub-problem and recursive FFT algorithm crosses each other is for the 2^8 number of. After these points the FFT algorithms are more efficient than the school book algorithm. The recursive FFT lags behind the four-sub problem algorithm up to 2^6 number of coefficients

**Three multiplication v/s four multiplication of FFT:**

The three multiplication approach is too fast than the four multiplication approach, which is visible in the graph.