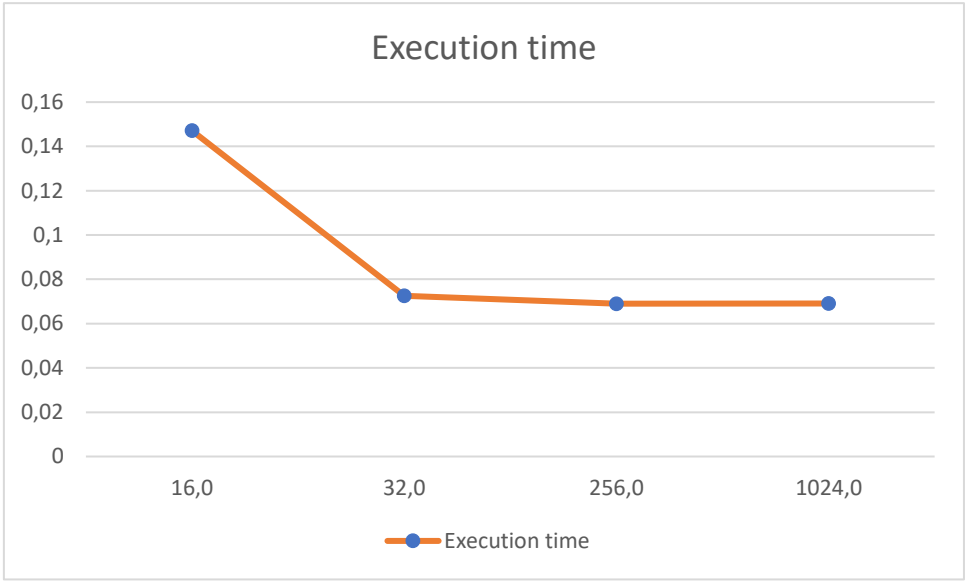
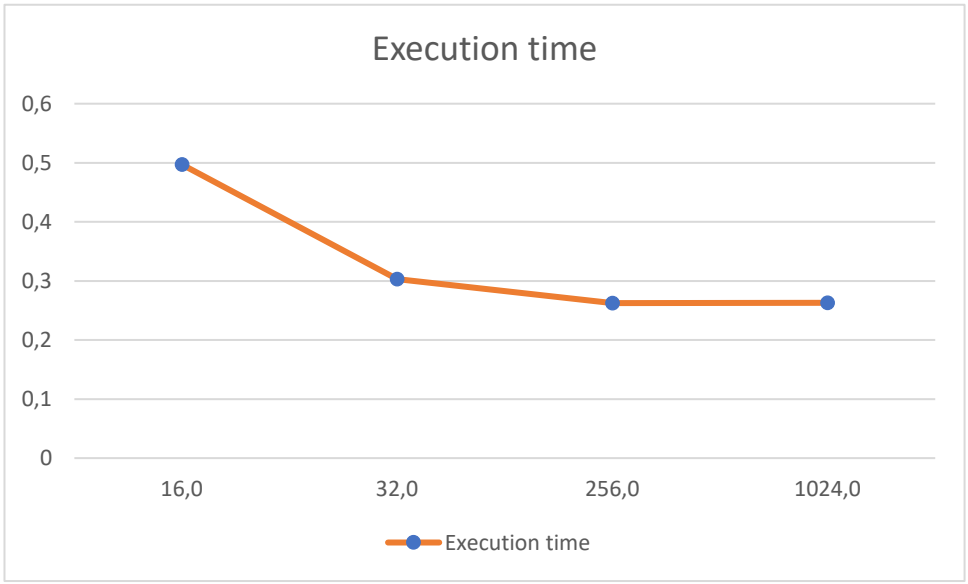
Array Size 2^20 1048576

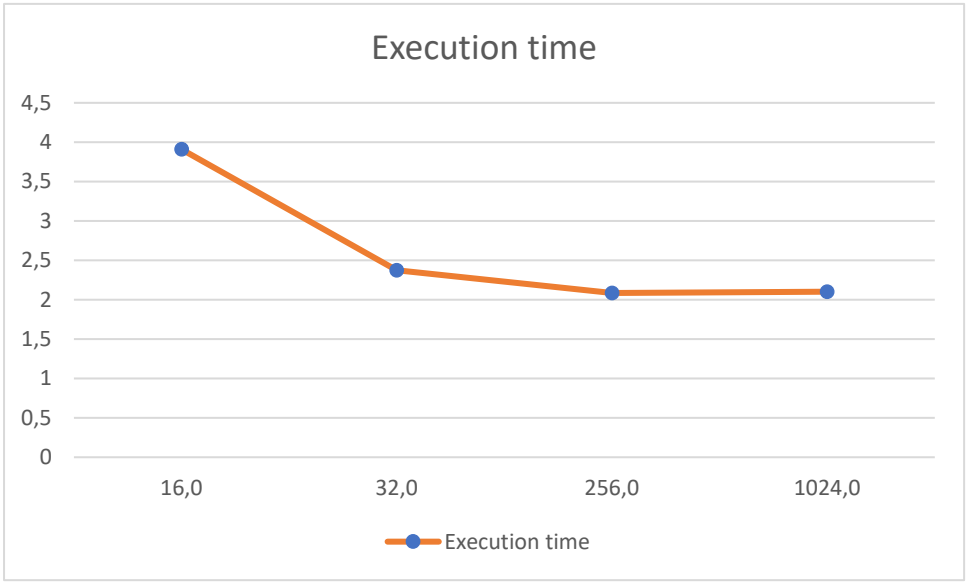
The plot shows the execution time for different workgroup sizes. It shows, that the execution runs faster for bigger workgroup sizes, which results of better parallelization. From a size of 32 onwards, there isn't really a increase of performance notable.



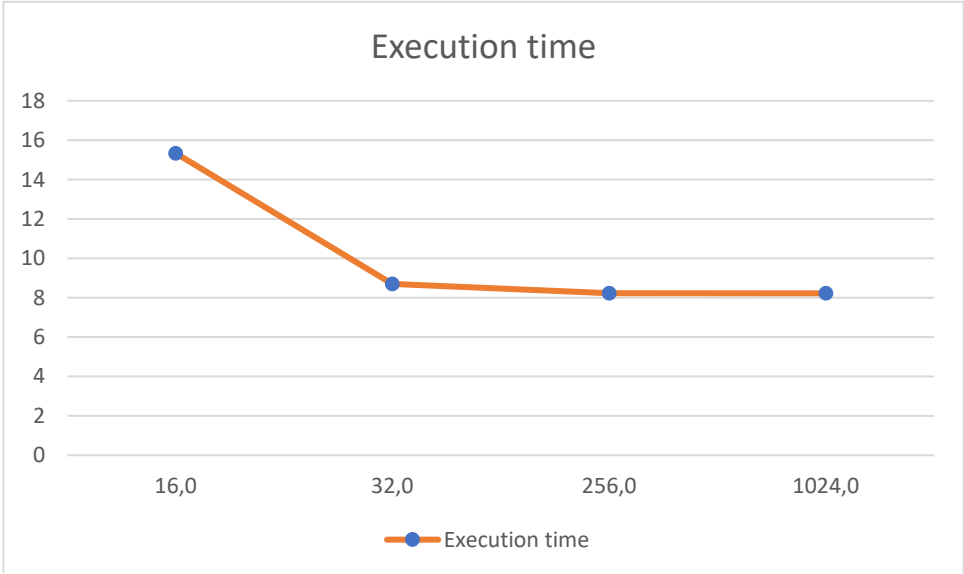
Array Size 2^22 4194304



Array Size 2^25 33554432



Array Size 2^27 134217728



The plot shows the execution time for different workgroup sizes as well. But this time the array size is 2^27 instead of 2^20. It shows the same characteristics of running faster with bigger workgroup sizes. Apart from that it of course runs slower than with the smaller array size in general.

Workgroup size	1024	
	2^15	1
	2^16	2
	2^17	4
	2^18	8
	2^19	16
	2^20	32

This plot shows the execution time for different array sizes. It is notable, that the runtime does not increase until an array size of 2^18. From there onwards, the execution time increases linearly with the size of the array. This can be explained by the array being too big to be completely parallelised by the GPU, thus if the array increases then, the runtime equally increases.