WITH MEMORY	Instuctions	Core Cycles	S Cycles	N Cycles	I Cycles	C Cycles	Wait Cycles	Total	True Idle Cycles
initial	620226214	1.023E+09	728855589	232897632	120254219	0	1240908894	2322916334	35284909
optimized-1	844024822	1.286E+09	973524658	243016796	168038328	0	1291521998	2676101780	51433781
optimized-2-v1	560637052	857471806	649000191	163202201	94488489	0	814989422	1721680303	27328414
optimized-2-v2	560637052	857471806	649000191	163202201	94488489	0	814989422	1721680303	27328414
optimized-2-v3	470994406	694339163	534629122	123891439	84076059	0	614427236	1357023856	25006719
optimized-2-v4									
optimized-2-v5									