

START OF THE PROGRAM

	Cycle 1	Cyc 2	Cyc 3	Cyc 4	Cyc 5	Cyc 6	Cyc 7	Cyc 8	Cyc 9	Cyc 10	Cyc 11	Cyc 12	Cyc 13	Cyc 14	Cyc 15	Cyc 16	Cyc 17	Cyc 18	Cyc 19	Cyc 20	Cyc 21	Cyc 22	Cyc 23	Cyc 24	Cyc 25	Cyc 26	Cyc 27
LUI \$t0, 0x8000	Fetch	Deco	Ex	Mem	WB																						
ADDIU \$t0, \$t0, test_array		Fetch	Deco	Ex	Mem	WB																					
SUB \$t1,\$t1,\$t1			Fetch	Deco	Ex	Mem	WB																				
SUB \$t3,\$t3,\$t3				Fetch	Deco	Ex	Mem	WB																			
ADDI \$t4,\$0,1000					Fetch	Deco	Ex	Mem	WB																		
Loop1:BEQ \$t3,\$t4,OutLoop1						Fetch	Deco	Ex	Mem	WB																	
NOP							Fetch	Deco	Ex	Mem	WB																
LW \$t5,0(\$t0)								Fetch	Deco	Ex	Mem	WB															
											Ex BUBBLE	Mem BUBBLE	WB BUBBLE														
ADD \$t1,\$t1,\$t5									Fetch	Deco STALL	Deco	Ex	Mem	WB													
ADDI \$t0,\$t0,4										Fetch STALL	Fetch	Deco	Ex	Mem	WB												
ADDI \$t3,\$t3,1												Fetch	Deco	Ex	Mem	WB											
B Loop1													Fetch	Deco	Ex	Mem	WB										
NOP														Fetch	Deco	Ex	Mem	WB									
Loop1:BEQ \$t3,\$t4,OutLoop1															Fetch	Deco	Ex	Mem	WB								
NOP																Fetch	Deco	Ex	Mem	WB							
LW \$t5,0(\$t0)																	Fetch	Deco	Ex	Mem	WB						
																		Fetch	Deco	Ex	Mem	WB					
																			Ex BUBBLE	Mem BUBBLE	WB BUBBLE						
ADD \$t1,\$t1,\$t5																		Fetch	Deco STALL	Deco	Ex	Mem	WB				
ADDI \$t0,\$t0,4																			Fetch STALL	Fetch	Deco	Ex	Mem	WB			
ADDI \$t3,\$t3,1																					Fetch	Deco	Ex	Mem	WB		
B Loop1																						Fetch	Deco	Ex	Mem	WB	
NOP																							Fetch	Deco	Ex	Mem	WB

END OF THE PROGRAM

B Loop1	Fetch	Deco	Ex	Mem	WB							
NOP		Fetch	Deco	Ex	Mem	WB						
Loop1:BEQ \$t3,\$t4,OutLoop1			Fetch	Deco	Ex	Mem	WB					
NOP				Fetch	Deco	Ex	Mem	WB				
OutLoop1: LUI \$t3, 0x8000					Fetch	Deco	Ex	Mem	WB			
ADDIU \$t3, \$t3, Addition						Fetch	Deco	Ex	Mem	WB		
SW \$t1,0(\$t3)							Fetch	Deco	Ex	Mem	WB	