				1			truth tables												
					Instructor: Prof. Lei														
Slices 1-30				PLA inputs]	LA outpu	ts							
	In8	In7	In6 func3	In5	In4	In3	In2	In1	In0 Ci	Out2	Out1	Out0							
Instruction add	runco	Tunc4	nuncs	0	Tunci	func0	0	0	0	TS	Co	0	TS PLA terms	Co PLA terms	R PLA terms	Co, R = A + B+ C			
	1	0	0	0	0	0	0	0	1	1	0	1	1xxxxxxxx		100000001	CO, R = A + B + C			
	1	0	0	0	0	0	0	1	0	1	0	1	1xxxxxxxx		100000010				
	1	0	0	0	0	0	0	1	1	1	1	0	1xxxxxxxx	100000011					
	1	0	0	0	0	0	1	0	0	1	0	0	1xxxxxxxx	100000101	100000100				
	1	0	0	0	0	0	1	1	0	1	1	0	1xxxxxxxx 1xxxxxxxx	100000101 100000110					
	1	0	0	0	0	0	1	1	1	1	1	1	1xxxxxxxx	100000111	100000111				
addu	1	0	0	0	0	1	0	0	0	1	0	0	1xxxxxxxx			same as add			
	1	0	0	0	0	1	0	0	1	1	0	1	1xxxxxxxx		100001001				
	1	0	0	0	0	1	0	1	0	1	0	0	1xxxxxxxx		100001010				
	1	0	0	0	0	1	1	0	0	1	0	1	1xxxxxxxx 1xxxxxxxx	100001011	100001100				
	1	0	0	0	0	1	1	0	1	1	1	0	1xxxxxxxx	100001101	100001100				
	1	0	0	0	0	1	1	1	0	1	1	0	1xxxxxxxx	100001110					
	1	0	0	0	0	1	1	1	1	1	1	1	1xxxxxxxx	100001111	100001111				
sub	1	0	0	0	1	0	0	0	0	1 1	0	1	1xxxxxxxx	100010001	100010000	Co,R = A+B'+Ci			
	1	0	0	0	1	0	0	1	0	1	0	0	1xxxxxxxx 1xxxxxxxx	100010001					
	1	0	0	0	1	0	0	1	1	1	0	1	1xxxxxxxx 1xxxxxxxx		100010011				
	1	0	0	0	1	0	1	0	0	1	1	0	1xxxxxxxx	100010100					
	1	0	0	0	1	0	1	0	1	1	1	1	1xxxxxxxx	100010101	100010101				
	1	0	0	0	1	0	1	1	0	1	0	0	1xxxxxxxx	100010111	100010110				
subu	1	0	0	0	1	1	0	0	0	1	0	1	1xxxxxxxx 1xxxxxxxx	100010111	100011000	same as sub			
odbu	1	0	0	0	1	1	0	0	1	1	1	0	1xxxxxxxx 1xxxxxxxx	100011001	100011000	Suite as suo			
	1	0	0	0	1	1	0	1	0	1	0	0	1xxxxxxxx						
	1	0	0	0	1	1	0	1	1	1	0	1	1xxxxxxxx		100011011				
	1	0	0	0	1	1	1	0	0	1	1	0	1xxxxxxxx	100011100					
	1	0	0	0	1	1	1	0	1	1	0	1	1xxxxxxxx 1xxxxxxxx	100011101	100011101 100011110				
	1	0	0	0	1	1	1	1	1	1	1	0	1xxxxxxxx 1xxxxxxxx	100011111	100011110				
and	1	0	0	1	0	0	0	0	0	1	0	0	1xxxxxxxx			R = A & B; Co = 0			
0X24	1	0	0	1	0	0	0	0	1	1	0	0	1xxxxxxxx						
	1	0	0	1	0	0	0	1	0	1	0	0	1xxxxxxxx						
	1	0	0	1	0	0	0	0	0	1	0	0	1xxxxxxxx 1xxxxxxxx						
	1	0	0	1	0	0	1	0	1	1	0	0	1xxxxxxxx 1xxxxxxxx						
	1	0	0	1	0	0	1	1	0	1	0	1	1xxxxxxxx						
	1	0	0	1	0	0	1	1	1	1	0	1	1xxxxxxxx		100100111				
or	1	0	0	1	0	1	0	0	0	1	0	0	1xxxxxxxx			R = A B; Co = 0			
	1 1	0	0	1	0	1	0	0	1	1	0	0	1xxxxxxxx		100101010				
	1	0	0	1	0	1	0	1	1	1	0	1	1xxxxxxxx 1xxxxxxxx		100101010				
	1	0	0	1	0	1	1	0	0	1	0	1	1xxxxxxxx		1001011100				
	1	0	0	1	0	1	1	0	1	1	0	1	1xxxxxxxx		100101101				
	1	0	0	1	0	1	1	1	0	1	0	1	1xxxxxxxx		100101110				
xor	1 1	0	0	1 1	1	0	0	0	0	1	0	0	1xxxxxxxx 1xxxxxxxx		100101111	R = A^B; Co = 0			
AUE	1	0	0	1	1	0	0	0	1	l i	0	0	1xxxxxxxx 1xxxxxxxx			K-A D, C0-0			
	1	0	0	1	1	0	0	1	0	1	0	1	1xxxxxxxx		100110010				
	1	0	0	1	1	0	0	1	1	1	0	1	1xxxxxxxx		100110011				
	1	0	0	1	1	0	1	0	0	1	0	1	1xxxxxxxx		100110100				
	1 1	0	0	1	1	0	1	0	0	1 1	0	0	1xxxxxxxx 1xxxxxxxx		100110101				
	1	0	0	1	1	0	1	1	1	1	0	0	1xxxxxxxx 1xxxxxxxx						
nor	1	0	0	1	1	1	0	0	0	1	0	1	1xxxxxxxx		100111000	R = (A B)'; Co = 0			
	1	0	0	1	1	1	0	0	1	1	0	1	1xxxxxxxx		100111001				
	1	0	0	1	1	1	0	1	0	1	0	0	1xxxxxxxx						
	1	0	0	1	1	1	0	0	1	1	0	0	1xxxxxxxx						
	1	0	0	1	1	1	1	0	1	1	0	0	1xxxxxxxx 1xxxxxxxx						
	1	0	0	1	1	1	1	1	0	1	0	0	1xxxxxxxx						
	1	0	0	1	1	1	1	1	1	1	0	0	1xxxxxxxx						
sit	1	0	1	0	1	0	0	0	0	1	0	0	1xxxxxxxx			Co same as for sub/subu; R = 0			
	1	0	1	0	1	0	0	0	1	1	1	0	1xxxxxxxx	101010001					
	1 1	0	1	0	1	0	0	1	0	1 1	0	0	1xxxxxxxx 1xxxxxxxx						
	1	0	1	0	1	0	1	0	0	1	1	0	1xxxxxxxx 1xxxxxxxx	101010100					
	1	0	1	0	1	0	1	0	1	1	1	0	1xxxxxxxx	101010101					
	1	0	1	0	1	0	1	1	0	1	0	0	1xxxxxxxx						
	1	0	1	0	1	0	1	1	1	1	1	0	1xxxxxxxx	101010111					

sltu	1	0	1	0		1 1		0	0	0	1	0	0	1xxxxxxxx			Same as for slt						
	1	0	1	0		1 1		0	0	1	1	1	0	1xxxxxxxx	101011001								
	1	0	1	0		1 1		0	1	0	1	0	0	1xxxxxxxx									
	1	0	1	0		1 1		0	1	1	1	0	0	1xxxxxxxx									
	1	0	1	0		1 1		1	0	0	1	1	0	1xxxxxxxx	101011100								
	1	0	1	0		1 1		1	0	1	1	1	0	1xxxxxxxx	101011101								
	1	0	1	0		1 1		1	1	0	1	0	0	1xxxxxxxx									
	1	0	1	0		1 1		1	1	1	1	1	0	1xxxxxxxx	101011111								
au 1 au												_											
Slice MSB					PLA	inputs							LA outputs										
	In8	In7	In6	In5		In4 In3		In2	In1	In0		Out2	Out1	Out0									
Instruction	func5	func4	func3	func2	fi	unc1 func	0	A	В	<u> </u>	Ov	TS	slt	R	Oy PLA terms	TS PLA terms	slt PLA terms	R PLA terms					
add	1	0	0	0		0 0		0	0	0	0	1	0	0	100000001	1xxxxxxxx		100000001					
	1	0	0	0		0 0		0	1	0	0	1	0		100000001	1xxxxxxxx		100000001 100000010					
	1	0	0	0		0 0		0	1	1	0	1	0	0		1xxxxxxxx 1xxxxxxxx		100000010					
	1	0	0	0		0 0		1	0	0	0	1	0	1		1xxxxxxxx		100000100					
	1	0	0	0		0 0		1	0	1	0	1	0	0		1xxxxxxxx		100000100					
	1	0	0	0		0 0		1	1	0	1	1	0	0	100000110	1xxxxxxxx							
	1	0	0	0		0 0		1	1	1	0	1	0	1		1xxxxxxxx		100000111					
addu	1	0	0	0		0 1		0	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	0		0 1		0	0	1	1	1	0	1	100001001	1xxxxxxxx		100001001					
	1	0	0	0		0 1		0	1	0	0	1	0	1		1xxxxxxxx		100001010					
	1	0	0	0		0 1		0	1	1	0	1	0	0		1xxxxxxxx							
	1	0	0	0		0 1		1	0	0	0	1	0	1		1xxxxxxxx		100001100					
	1	0	0	0		0 1		1	0	1	0	1	0	0		1xxxxxxxx							
	1	0	0	0		0 1		1	1	0	1	1	0	0	100001110	1xxxxxxxx							
— .	1	0	0	0	-	0 1	-	1	1	1	0	1	0	1	1	1xxxxxxxx		100001111					
sub	1	0	0	0		1 0		0	0	0	0	1	0	0		1xxxxxxxx		100010000					
	1	0	0	0		1 0		0	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	0		1 0		0	1	1	0	1	0	1	100010011	1xxxxxxxx 1xxxxxxxx		100010011					
	1	0	0	0		1 0		1	0	0	1	1	0	0	100010011	1xxxxxxxx 1xxxxxxxx		100010011					
	1	0	0	0		1 0		1	0	1	0	1	0	1	100010100	1xxxxxxxx		100010101					
	1	0	0	0		1 0		1	1	0	0	1	0	1		1xxxxxxxx		100010101					
	1	0	0	0		1 0		1	1	1	0	1	0	0		1xxxxxxxx		100010110					
subu	1	0	0	0		1 1		0	0	0	0	1	0	1		1xxxxxxxx		100011000					
	1	0	0	0		1 1		0	0	1	0	1	0	0		1xxxxxxxx							
	1	0	0	0		1 1		0	1	0	0	1	0	0		1xxxxxxxx							
	1	0	0	0		1 1		0	1	1	1	1	0	1	100011011	1xxxxxxxx		100011011					
	1	0	0	0		1 1		1	0	0	1	1	0	0	100011100	1xxxxxxxxx							
	1	0	0	0		1 1		1	0	1	0	1	0	1		1xxxxxxxx		100011101					
	1	0	0	0		1 1		1	1	0	0	1	0	1		1xxxxxxxx		100011110					
	1	0	0	0		1 1	_	1	1	1	0	1	0	0	-	1xxxxxxxx							
and	1	0	0	1		0 0		0	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 0		0	0	1	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 0		0	1	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 0		1	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 0		1	0	1	0	1	0	0		1xxxxxxxx 1xxxxxxxx							
	1	0	0	1		0 0		1	1	0	0	1	0	1		1xxxxxxxx		100100110					
	1	0	0	1		0 0		1	1	1	0	1	0	1		1xxxxxxxx		100100111					
or	1	0	0	1		0 1		0	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 1		0	0	1	0	1	0	0		1xxxxxxxx							
	1	0	0	1		0 1		0	1	0	0	1	0	1		1xxxxxxxx		100101010					
	1	0	0	1		0 1		0	1	1	0	1	0	1		1xxxxxxxxx		100101011					
	1	0	0	1		0 1		1	0	0	0	1	0	1		1xxxxxxxx		100101100					
	1	0	0	1		0 1	_	1	0	1	0	1	0	1		1xxxxxxxx		100101101					
	1	0	0	1		0 1		1	1	0	0	1	0	1		1xxxxxxxx		100101110					
	1	0	0	1		0 1	+	1	1	1	0	1	0	1	1	1xxxxxxxx		100101111					
xor	1	0	0	1		1 0		0	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		1 0		0	0	1	0	1	0	0		1xxxxxxxx		100110010					
	1	0	0	1		1 0		0	1	0	0	1	0	1		1xxxxxxxx		100110010 100110011					
	1	0	0	1		1 0		1	0	0	0	1	0	1		1xxxxxxxx 1xxxxxxxx		100110011					
	1	0	0	1		1 0		1	0	1	0	1	0	1		1xxxxxxxx 1xxxxxxxx		100110100					
	1	0	0	1		1 0		1	1	0	0	1	0	0		1xxxxxxxx		100110101					
	1	0	0	1		1 0		1	1	1	0	1	0	0		1xxxxxxxx							
nor	1	0	0	1		1 1		0	0	0	0	1	0	1	1	1xxxxxxxx		100111000					
	1	0	0	1		1 1		0	0	1	0	1	0	1		1xxxxxxxx		100111001					
	1	0	0	1		1 1		0	1	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		1 1		0	1	1	0	1	0	0		1xxxxxxxx							
	1	0	0	1		1 1		1	0	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		1 1		1	0	1	0	1	0	0		1xxxxxxxxx							
	1	0	0	1		1 1		1	1	0	0	1	0	0		1xxxxxxxx							
	1	0	0	1		1 1	-	1	1	1	0	1	0	0	1	1xxxxxxxx							
slt	1	0	1	0		1 0		0	0	0	0	1	1	0		1xxxxxxxxx	101010000						

	1	0	1	0	1	0	0	0	1	0	1	0	0		1xxxxxxxx						
	1	0	1	0	1	0	0	1	0	0	1	0	0		1xxxxxxxx						
	1	0	1	0	1	0	0	1	1	0	1	0	0		1xxxxxxxx						
	1		1		1	0	0	1	1		1		0								
	1	0	1	0	1	0	1	0	0	0	1	1	0		1xxxxxxxx	101010100					
	1	0	1	0	1	0	1	0	1	0	1	1	0		1xxxxxxxxx	101010101					
	1	0	1	0	1	0	1	1	0	0	1	1	0		1xxxxxxxx	101010110					
	1	0	1	0	1	0	1	1	1	0	1	0	0		1xxxxxxxx						
situ	1	0	1	0	1	1	0	0	0	0	1	1	0		1xxxxxxxx	101011000					
ouu	1	0	1	0	1	1	0	0	1	0	1	0				101011000					
	1	0	1	0	1	1			1		1		0		1xxxxxxxx	101011010					
	1	0	1	0	1	1	0	1	0	0	1	1	0		1xxxxxxxx	101011010					
	1	0	1	0	1	1	0	1	1	0	1	1	0		1xxxxxxxx	101011011					
	1	0	1	0	1	1	1	0	0	0	1	0	0		1xxxxxxxx						
	1	0	1	0	1	1	1	0	1	0	1	0	0		1xxxxxxxx						
	1	0	1	0	1	1	1	1	0	0	1	1	0		1xxxxxxxx	101011110					
	1	0	1	0	1	1	1	1	1	0	1	0	0			101011110					
	1	- 0		- 0		1	1	1	1	- 0	1	- 0	0		1xxxxxxxx						
Slice 0					PLA Inp	uts				PLA	A outputs	3									
	In8	In7	In6	In5	In4	In3	In2	In1	InO	Out2	Out1	Out0									
Tantanation	func5	func4	func3	func2	- Armel	func0		D	slt	TS	Co	R	TS PLA terms	Co PLA terms	R PLA terms						
Instruction					IUIICI		_ A	- Б					13 FLA CHIS	CO FLA IGIUS	K PLA GIIIS						
add	1	0	0	- 0	0	0	0	0	0	1	0	0	1xxxxxxxx								
	1	0	0	- 0	0	0	0	0	1	1	0	0	1xxxxxxxx								
	1	0	0	0	0	0	0	1	0	1	0	1	1xxxxxxxx		100000010						
	1	0	0	0	0	0	0	1	1	1	0	1	1xxxxxxxx		100000011						
	1	0	0	0	0	0	1	0	0	1	0	1	1xxxxxxxx		100000100						
	1	0	0	0	0	0	1	0	1	1	0	1									
	1	0	C	0	0		1 .	U	1	1	1	- 1	1xxxxxxxx	100000110	100000101						
	1	U	0	0	0	0	1	1	0	1	1	0	1xxxxxxxx	100000110							
	1	0	0	0	0	0	1	1	1	1	1	0	1xxxxxxxx	100000111							
addu	1	0	0	0	0	1	0	0	0	1	0	0	1xxxxxxxx								
	1	0	0	0	0	1	0	0	1	1	0	0	1xxxxxxxx								
	1	0	0	0	0	1	0	1	0	1	0	1	1xxxxxxxx		100001010						
	1	0	0	0	0	1	0	1	1	1	0	1	1xxxxxxxx		100001011						
	1	0	0	0	0	1	1	0	0	1	0	1									
	1	0	0	- 0	0	1	1	0	0	1	0	1	1xxxxxxxx		100001100						
	1	0	0	0	0	1	1	0	1	1	0	1	1xxxxxxxx		100001101						
	1	0	0	0	0	1	1	1	0	1	1	0	1xxxxxxxx	100001110							
	1	0	0	0	0	1	1	1	1	1	1	0	1xxxxxxxx	100001111							
sub	1	0	0	0	1	0	0	0	0	1	1	0	1xxxxxxxx	100010000							
	1	0	0	0	1	0	0	0	1	1	1	0	1xxxxxxxx	100010001							
	1	0	0	0	1	0	0	1	0	1	0	1		100010001	100010010						
	1	0	0	0	1			1	0	1	0		1xxxxxxxx		100010010						
	1	0	0	- 0	1	0	0	1	1	1	0	1	1xxxxxxxx		100010011						
	1	0	0	0	1	0	1	0	0	1	1	1	1xxxxxxxxx	100010100	100010100						
	1	0	0	0	1	0	1	0	1	1	1	1	1xxxxxxxx	100010101	100010101						
	1	0	0	0	1	0	1	1	0	1	1	0	1xxxxxxxx	100010110							
	1	0	0	0	1	0	1	1	1	1	1	0	1xxxxxxxx	100010111							
subu	1	0	0	0	1	1	0	0	0	1	1	0		100011000							
Subu	1	0	0	0	1	1	0	0	0	1	1		1xxxxxxxx								
	1	0	0	- 0	1	1	0	0	1	1	1	0	1xxxxxxxx	100011001							
	1	0	0	0	1	1	0	1	0	1	0	1	1xxxxxxxx		100011010						
	1	0	0	0	1	1	0	1	1	1	0	1	1xxxxxxxx		100011011						
	1	0	0	0	1	1	1	0	0	1	1	1	1xxxxxxxx	100011100	100011100						
	1	0	0	0	1	1	1	0	1	1	1	1	1xxxxxxxx	100011101	100011101						
	1	0	0	0	1	1	1	1	0	1	1	0	1xxxxxxxx	100011110							
	1	0	0	0	1	1	1	1	1	1	1	0		100011110							
	1	0	0	- 0	0	1	1	1	1	1	1	0	1xxxxxxxx	100010111							
and	1	0	0	1		0	0	0	0	1	0	0	1xxxxxxxx								
	1	0	0	- 1	0	0	0	0	1	1	0	0	1xxxxxxxx								
	1	0	0	1	0	0	0	1	0	1	0	0	1xxxxxxxx								
	1	0	0	1	0	0	0	1	1	1	0	0	1xxxxxxxxx								
	1	0	0	1	0	0	1	0	0	1	0	0	1xxxxxxxx								
	1	0	0	1	0	0	1	0	1	1	0	0	1xxxxxxxx								
	1	0	0	1	0	0	1	1	0	1	0	1			100100110						
	1	0	0	1	0	0	1	1	1	1	0	1	1xxxxxxxx		100100110						
	1	0	U C		0	- 0	1	1	1	1	0		1xxxxxxxx		100100111						
or	1	U	0	- 1	0	1	0	0	0	1	0	0	1xxxxxxxx								
	1	0	0	1	0	1	0	0	1	1	0	0	1xxxxxxxx								
	1	0	0	1	0	1	0	1	0	1	0	1	1xxxxxxxx		100101010						
	1	0	0	1	0	1	0	1	1	1	0	1	1xxxxxxxx		100101011						
	1	0	0	1	0	1	1	0	0	1	0	1	1xxxxxxxx		100101100						
	1	0	0	1	0	1	1	0	1	1	0	1	1xxxxxxxx		100101100						
	1	0	U	1	0	1	1	U	1	1	0										
	1	U	0	- 1	0	1	1	1	0	1	0	1	1xxxxxxxx		100101110						
	1	0	0	11	0	1	1	1	1	1	0	1	1xxxxxxxx		100101111						
xor	1	0	0	1	1	0	0	0	0	1	0	0	1xxxxxxxx								
	1	0	0	1	1	0	0	0	1	1	0	0	1xxxxxxxx								
	1	0	0	1	1	0	0	1	0	1	0	1	1xxxxxxxx		100110010						
	1	0	0	1	1	0	0	1	1	1	0	1	1xxxxxxxx		100110010						
	1 1	0	C	1	1	0		1	1	1	0	1									
		U	0	1	1	0	1	0	0	1	0	1	1xxxxxxxx		100110100						
	1				1 1	0	1 1	0	1	1	0	1	1xxxxxxxx		100110101						
	1 1	0	0	1	1																
	1 1 1	0	0	1	1	0	1	1	0	1	0	0	1xxxxxxxx								
	1 1 1 1	0 0	0	1 1	1 1	0	1 1	1 1	0	1	0	0	1xxxxxxxx 1xxxxxxxx								
nor	1 1 1 1	0 0 0	0 0	1 1 1	1 1 1	0 0	1 1 0	1 1 0	1	1 1	0	0	1xxxxxxxx		100111000						
nor	1 1 1 1 1	0 0 0 0	0 0 0	1 1 1	1 1 1 1	0 0 1	1 1 0	1 1 0	0 1 0 1	1 1 1	0 0 0	0 0 1			100111000 100111001						

	1	0	0	1	1	1	0	1	0	1	0	0	1xxxxxxxx									
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slt	1	0	1	0	1	0	0	0	0	1	1	0	1xxxxxxxx	101010000								
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	1	0	1	0	1	0	1	1	1	1	1	1	1xxxxxxxx	101010111	101010111					_		
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	1	0	1	0	1	1	1	1	0	1	1	0	1xxxxxxxx 1xxxxxxxx	101011101	101011101							
	1	0	1	0	1	1	1	1	1	1	1	1	1xxxxxxxx	101011110	101011111							
	1	U	1	U	1	1	1	1	1		1	1	IAAAAAAA	101011111	101011111							