

IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DCKBJ-A1-D
PRODUCT NAME: ASHC INSTRUCTION TEST
DATE CREATED: MARCH 15, 1972
MAINTAINER: DIAGNOSTIC GROUP
AUTHOR: B. BRAIN

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1,0 ABSTRACT
THIS PROGRAM WILL INCREMENTLY TEST AND ISOLATE SIMPLE MALFUNCTIONS
RELATED TO THE ASHC INSTRUCTION

2,0 REQUIREMENTS

2,1 EQUIPMENT
BASIC 11/45 SYSTEM OR
11/40 WITH KE11-E OPTION

2,2 STORAGE
THIS PROGRAM USES 0 THRU 17500

2,3 PRELIMINARY PROGRAMS
00AA THRU 00MA

3,0 LOADING PROCEDURE
LOAD PROGRAM USING ABS LOADER

4,0 STARTING PROCEDURE
LOAD ADDRESS 200, PRESS START, THE PROGRAM WILL LOOP
AND RING BELL ON PASS COMPLETION,

5,0 OPERATING PROCEDURE

5,1 SWITCH SETTINGS
NONE

5,2 SUBROUTINE ABSTRACTS

5,2,1 SCOPE
SCOPE IS A MOVE PC,R1 AND STORES THE PC+2 IN R1,

5,2,2 HLT
HLT IS A HALT INSTRUCTION,

6,0 ERRORS
ALL ERRORS WILL CAUSE A HALT
TRAP AND INTERRUPT ERRORS WILL CAUSE A HALT AT VECTOR+2,

6,1 ERROR RECOVERY
PRESS CONTINUE TO PROCEED TO NEXT TEST

6,2 ERROR LOOPING
TO LOOP ON AN ERROR, PLACE A BRANCH TO THE PREVIOUS SCOPE
INSTRUCTION IN PLACE OF THE HALT INSTRUCTION,
NOTE THAT IF THE ERROR IS INTERMITTANT THAT THE TEST WILL
DROP THRU THE HALT AND PROCEED TO THE NEXT TEST,
THEREFORE, TO LOOP THE TEST CONTINUOUSLY REPLACE THE BEQ ,+4
INSTRUCTION IMMEDIATLY PRECEEDING THE HALT WITH A BRANCH
BACK TO THE PREVIOUS SCOPE,

TO LOOP ON TRAP FAILURES, PATCH IN THE FOLLOWING ROUTINE
AT THE ADDRESS OF THE TRAP VECTOR,

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TRAPVEC:      TRAPVEC+4
TRAPVEC+2:    0
TRAPVEC+4:    012716 ;MOVE SCOPE ADDRESS TO STACK
TRAPVEC+6:    ADDRESS ;ADDRESS OF PREVIOUS SCOPE
TRAPVEC+10:   020006 ;RETURN TO TEST AT SCOPE
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RESTORE ALL LOCATIONS BEFORE PROCEEDING TO NEXT TEST,

7,0

RESTRICTIONS
NONE

8,0

MISCELLANEOUS
ON TRAP ERRORS THE STACK POINTER(R6) WILL CONTAIN THE
ADDRESS WHERE THE TRAP OCCURED;

8,1

EXECUTION TIME
THE PROGRAM TAKES ABOUT 1 MINUTE,

8,2

STACK POINTER
THE PROGRAM INITIALLY SETS THE STACK POINTER AT 500;

9,0

PROGRAM DESCRIPTIONS

THIS IS A TEST OF THE ASHC INSTRUCTION; IT TESTS ASHC
WITH DIFFERENT SHIFT COUNTS IN ALL THE REGISTERS
INCLUDING ODD REGISTERS,

.TITLE MAINDEC-11-DCKBJ-A ASHC TEST
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 !PROGRAM BY BOB BRAIN

.ABS

010701			SCOPE#	10701	
000000			HLT#	HALT	
177776			PS#	177776	
177570			SWR#	177570	
177570			DISPLAY#	SWR	
000001			N#	1	
000000			DUMMY#	0	
000000			M#0		
000000			.#0		!TRAP CATCHER 0 - 776
000200	000200	000576	.#	200	
	000167			JMP	BEG
	001000		.#	1000	
001000	000000		!CNTI	0	!PASS COUNT
001002	012706	000500	BEG:	MOV	#500,%6
001006	005037	177776		CLR	@#PS
001012	032737	001000		BIT	#1000,@#SWR
001020	001403			BEQ	,+10
001022	012737	004000		MOV	#4000,@#PS
001030	032767	000400		BIT	#400,SWR
001036	001403			BEQ	,+10
001040	116767	176524		MOV#	SWR,177770
		176722			

 TEST 1 0 0 SHIFTED BY 0 = 0 0 PS = 4

001046	010701			SCOPE	
001050	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001054	012701	000000		MOV	#0,X011 ;LOAD R011 WITH 0
001060	000241			CLC	
001062	073027	000000		ASHC	#0,X0 ;SHIFT R0,R011 BY 0
001066	013767	177776	013654	MOV	@#PS,PSW ;SAVE PS
001074	122767	000004	013646	CMPB	#4,PSW ;IS THE PS 4?
001102	001401			BEQ	,+4
001104	000000			HLT	!THE PS IS NOT EQUAL TO 4
001106	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001112	001401			BEQ	,+4
001114	000000			HLT	!R0 IS NOT EQUAL TO 0
001116	022701	000000		CMP	#0,X011 ;IS THE RESULT 0?
001122	001401			BEQ	,+4
001124	000000			HLT	!R011 IS NOT EQUAL TO 0

 TEST 2 0 0 SHIFTED BY -32, = 0 0 PS = 4

001126	010701			SCOPE	
001130	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001134	012701	000000		MOV	#0,X011 ;LOAD R011 WITH 0
001140	000241			CLC	
001142	073027	177740		ASHC	#-32,X0 ;SHIFT R0,R011 BY -32,
001146	013767	177776	013574	MOV	@#PS,PSW ;SAVE PS
001154	122767	000004	013566	CMPB	#4,PSW ;IS THE PS 4?
001162	001401			BEQ	,+4
001164	000000			HLT	!THE PS IS NOT EQUAL TO 4
001166	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001172	001401			BEQ	,+4
001174	000000			HLT	!R0 IS NOT EQUAL TO 0
001176	022701	000000		CMP	#0,X011 ;IS THE RESULT 0?
001202	001401			BEQ	,+4
001204	000000			HLT	!R011 IS NOT EQUAL TO 0

 ;TEST 3 0 0 SHIFTED BY 32, = 0 0 PS = 4

001206	010701			SCOPE	
001210	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001214	012701	000000		MOV	#0,X011 ;LOAD R0!1 WITH 0
001220	000241			CLC	
001222	073027	000040		ASHC	#32,X0 ;SHIFT R0,R0!1 BY 32.
001226	013767	177776	013514	MOV	@#PS,PSW ;SAVE PS
001234	122767	000004	013506	CMPB	#4,PSW ;IS THE PS 4?
001242	001401			BEQ	,+4
001244	000000			HLT	;THE PS IS NOT EQUAL TO 4
001246	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001252	001401			BEQ	,+4
001254	000000			HLT	;R0 IS NOT EQUAL TO 0
001256	022701	000000		CMP	#0,X011 ;IS THE RESULT 0?
001262	001401			BEQ	,+4
001264	000000			HLT	;R0!1 IS NOT EQUAL TO 0

 ;TEST 4 0 1 SHIFTED BY 0 = 0 1 PS = 0

001266	010701			SCOPE	
001270	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001274	012701	000001		MOV	#1,X011 ;LOAD R0!1 WITH 1
001300	000241			CLC	
001302	073027	000000		ASHC	#0,X0 ;SHIFT R0,R0!1 BY 0
001306	013767	177776	013434	MOV	@#PS,PSW ;SAVE PS
001314	122767	000000	013426	CMPB	#0,PSW ;IS THE PS 0?
001322	001401			BEQ	,+4
001324	000000			HLT	;THE PS IS NOT EQUAL TO 0
001326	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001332	001401			BEQ	,+4
001334	000000			HLT	;R0 IS NOT EQUAL TO 0
001336	022701	000001		CMP	#1,X011 ;IS THE RESULT 1?
001342	001401			BEQ	,+4
001344	000000			HLT	;R0!1 IS NOT EQUAL TO 1

 TEST 5 @ 1 SHIFTED BY 1 = 0 2 PS = 0

001346	010701		SCOPE		
001350	012700	000000	MOV	#0,X0	ILOAD R0 WITH 0
001354	012701	000001	MOV	#1,X011	ILOAD R0:1 WITH 1
001360	000241		CLC		
001362	073027	000001	ASHC	#1,X0	ISHIFT R0,R0:1 BY 1
001366	013767	177776	MOV	@#PS,PSW	ISAVE PS
001374	122767	000000	CMPB	#0,PSW	IIS THE PS 0?
		013346	BEQ	,+4	
001402	001401		HLT		
001404	000000		HLT		I THE PS IS NOT EQUAL TO 0
001406	022700	000000	CMP	#0,X0	IIS THE RESULT 0?
001412	001401		BEQ	,+4	
001414	000000		HLT		IR0 IS NOT EQUAL TO 0
001416	022701	000002	CMP	#2,X011	IIS THE RESULT 2?
001422	001401		BEQ	,+4	
001424	000000		HLT		IR0:1 IS NOT EQUAL TO 2

 TEST 6 @ 1 SHIFTED BY 2 = 0 4 PS = 0

001426	010701		SCOPE		
001430	012700	000000	MOV	#0,X0	ILOAD R0 WITH 0
001434	012701	000001	MOV	#1,X011	ILOAD R0:1 WITH 1
001440	000241		CLC		
001442	073027	000002	ASHC	#2,X0	ISHIFT R0,R0:1 BY 2
001446	013767	177776	MOV	@#PS,PSW	ISAVE PS
001454	122767	000000	CMPB	#0,PSW	IIS THE PS 0?
		013274	BEQ	,+4	
		013266	HLT		
001462	001401		HLT		I THE PS IS NOT EQUAL TO 0
001464	000000		HLT		IIS THE RESULT 0?
001466	022700	000000	CMP	#0,X0	
001472	001401		BEQ	,+4	
001474	000000		HLT		IR0 IS NOT EQUAL TO 0
001476	022701	000004	CMP	#4,X011	IIS THE RESULT 4?
001502	001401		BEQ	,+4	
001504	000000		HLT		IR0:1 IS NOT EQUAL TO 4

 TEST 7 0 1 SHIFTED BY 3 = 0 10 PS = 0

001506	010701			SCOPE	
001510	012700	000000		MOV #0,X0	ILOAD R0 WITH 0
001514	012701	000001		MOV #1,X011	ILOAD R0:1 WITH 1
001520	000241			CLC	
001522	073027	000003		ASHC #3,X0	ISHIFT R0,R0:1 BY 3
001526	013767	177776	013214	MOV @#PS,PSW	ISAVE PS
001534	122767	000000	013206	CMPB #0,PSW	IIS THE PS 0?
001542	001401			BEQ ,+4	
001544	000000			HLT	I THE PS IS NOT EQUAL TO 0
001546	022700	000000		CMP #0,X0	IIS THE RESULT 0?
001552	001401			BEQ ,+4	
001554	000000			HLT	IR0 IS NOT EQUAL TO 0
001556	022701	000010		CMP #10,X011	IIS THE RESULT 10?
001562	001401			BEQ ,+4	
001564	000000			HLT	IR0:1 IS NOT EQUAL TO 10

 TEST 10 0 1 SHIFTED BY 4 = 0 20 PS = 0

001566	010701			SCOPE	
001570	012700	000000		MOV #0,X0	ILOAD R0 WITH 0
001574	012701	000001		MOV #1,X011	ILOAD R0:1 WITH 1
001600	000241			CLC	
001602	073027	000004		ASHC #4,X0	ISHIFT R0,R0:1 BY 4
001606	013767	177776	013134	MOV @#PS,PSW	ISAVE PS
001614	122767	000000	013126	CMPB #0,PSW	IIS THE PS 0?
001622	001401			BEQ ,+4	
001624	000000			HLT	I THE PS IS NOT EQUAL TO 0
001626	022700	000000		CMP #0,X0	IIS THE RESULT 0?
001632	001401			BEQ ,+4	
001634	000000			HLT	IR0 IS NOT EQUAL TO 0
001636	022701	000020		CMP #20,X011	IIS THE RESULT 20?
001642	001401			BEQ ,+4	
001644	000000			HLT	IR0:1 IS NOT EQUAL TO 20

 TEST 11 0 1 SHIFTED BY 5 = 0 40 PS = 0

001646	010701			SCOPE	
001650	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001654	012701	000001		MOV	#1,X011 ;LOAD R0!1 WITH 1
001660	000241			CLC	
001662	073027	000005		ASHC	#5,X0 ;SHIFT R0,R0!1 BY 5
001666	013767	177776	013054	MOV	@#PS,PSW ;SAVE PS
001674	122767	000000	013046	CMPB	#0,PSW ;IS THE PS 0?
001702	001401			BEQ	,+4
001704	000000			HLT	;THE PS IS NOT EQUAL TO 0
001706	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001712	001401			BEQ	,+4
001714	000000			HLT	;R0 IS NOT EQUAL TO 0
001716	022701	000040		CMP	#40,X0!1 ;IS THE RESULT 40?
001722	001401			BEQ	,+4
001724	000000			HLT	;R0!1 IS NOT EQUAL TO 40

 TEST 12 0 1 SHIFTED BY 6 = 0 100 PS = 0

001726	010701			SCOPE	
001730	012700	000000		MOV	#0,X0 ;LOAD R0 WITH 0
001734	012701	000001		MOV	#1,X011 ;LOAD R0!1 WITH 1
001740	000241			CLC	
001742	073027	000006		ASHC	#6,X0 ;SHIFT R0,R0!1 BY 6
001746	013767	177776	012774	MOV	@#PS,PSW ;SAVE PS
001754	122767	000000	012766	CMPB	#0,PSW ;IS THE PS 0?
001762	001401			BEQ	,+4
001764	000000			HLT	;THE PS IS NOT EQUAL TO 0
001766	022700	000000		CMP	#0,X0 ;IS THE RESULT 0?
001772	001401			BEQ	,+4
001774	000000			HLT	;R0 IS NOT EQUAL TO 0
001776	022701	000100		CMP	#100,X0!1 ;IS THE RESULT 100?
002002	001401			BEQ	,+4
002004	000000			HLT	;R0!1 IS NOT EQUAL TO 100

 TEST 13 0 1 SHIFTED BY 7 = 0 200 PS = 0

002006	010701			SCOPE	
002010	012700	000000		MOV #0,X0	ILOAD R0 WITH 0
002014	012701	000001		MOV #1,X011	ILOAD R011 WITH 1
002020	000241			CLC	
002022	073027	000007		ASHC #7,X0	ISHIFT R0,R011 BY 7
002026	013767	177776	012714	MOV @#PS,PSW	ISAVE PS
002034	122767	000000	012706	CMPB #0,PSW	IIS THE PS 0?
002042	001401			BEQ ,+4	
002044	000000			HLT	I THE PS IS NOT EQUAL TO 0
002046	022700	000000		CMP #0,X0	IIS THE RESULT 0?
002052	001401			BEQ ,+4	
002054	000000			HLT	IR0 IS NOT EQUAL TO 0
002056	022701	000200		CMP #200,X011	IIS THE RESULT 200?
002062	001401			BEQ ,+4	
002064	000000			HLT	IR011 IS NOT EQUAL TO 200

 TEST 14 0 1 SHIFTED BY 10 = 0 400 PS = 0

002066	010701			SCOPE	
002070	012700	000000		MOV #0,X0	ILOAD R0 WITH 0
002074	012701	000001		MOV #1,X011	ILOAD R011 WITH 1
002100	000241			CLC	
002102	073027	000010		ASHC #10,X0	ISHIFT R0,R011 BY 10
002106	013767	177776	012634	MOV @#PS,PSW	ISAVE PS
002114	122767	000000	012626	CMPB #0,PSW	IIS THE PS 0?
002122	001401			BEQ ,+4	
002124	000000			HLT	I THE PS IS NOT EQUAL TO 0
002126	022700	000000		CMP #0,X0	IIS THE RESULT 0?
002132	001401			BEQ ,+4	
002134	000000			HLT	IR0 IS NOT EQUAL TO 0
002136	022701	000400		CMP #400,X011	IIS THE RESULT 400?
002142	001401			BEQ ,+4	
002144	000000			HLT	IR011 IS NOT EQUAL TO 400

 TEST 15 0 1 SHIFTED BY 11 * 0 1000 PS * 0

002146	010701			SCOPE		
002150	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
002154	012701	000001		MOV	#1,X011	ILOAD R011 WITH 1
002160	000241			CLC		
002162	073027	000011		ASHC	#11,X0	ISHIFT R0,R011 BY 11
002166	013767	177776	012554	MOV	#PS,PSW	ISAVE PS
002174	122767	000000	012546	CMPB	#0,PSW	IIS THE PS 0?
002202	001401			BEQ	.*4	
002204	000000			HLT		I THE PS IS NOT EQUAL TO 0
002206	022700	000000		CMP	#0,X0	IIS THE RESULT 0?
002212	001401			BEQ	.*4	
002214	000000			HLT		IR0 IS NOT EQUAL TO 0
002216	022701	001000		CMP	#1000,X011	IIS THE RESULT 1000?
002222	001401			BEQ	.*4	
002224	000000			HLT		IR011 IS NOT EQUAL TO 1000

 TEST 16 0 1 SHIFTED BY 12 * 0 2000 PS * 0

002226	010701			SCOPE		
002230	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
002234	012701	000001		MOV	#1,X011	ILOAD R011 WITH 1
002240	000241			CLC		
002242	073027	000012		ASHC	#12,X0	ISHIFT R0,R011 BY 12
002246	013767	177776	012474	MOV	#PS,PSW	ISAVE PS
002254	122767	000000	012466	CMPB	#0,PSW	IIS THE PS 0?
002262	001401			BEQ	.*4	
002264	000000			HLT		I THE PS IS NOT EQUAL TO 0
002266	022700	000000		CMP	#0,X0	IIS THE RESULT 0?
002272	001401			BEQ	.*4	
002274	000000			HLT		IR0 IS NOT EQUAL TO 0
002276	022701	002000		CMP	#2000,X011	IIS THE RESULT 2000?
002302	001401			BEQ	.*4	
002304	000000			HLT		IR011 IS NOT EQUAL TO 2000

 ;TEST 17 0 1 SHIFTED BY 13 = 0 4000 PS = 0

002306	010701			SCOPE		
002310	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
002314	012701	000001		MOV	#1,%011	;LOAD R0!1 WITH 1
002320	000241			CLC		
002322	073027	000013		ASHC	#13,%0	;SHIFT R0,R0!1 BY 13
002326	013767	177776	012414	MOV	@#PS,PSW	;SAVE PS
002334	122767	000000	012406	CMPB	#0,PSW	;IS THE PS 0?
002342	001401			BEQ	,+4	
002344	000000			HLT		;THE PS IS NOT EQUAL TO 0
002346	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
002352	001401			BEQ	,+4	
002354	000000			HLT		;R0 IS NOT EQUAL TO 0
002356	022701	004000		CMP	#4000,%0!1	;IS THE RESULT 4000?
002362	001401			BEQ	,+4	
002364	000000			HLT		;R0!1 IS NOT EQUAL TO 4000

 ;TEST 20 0 1 SHIFTED BY 14 = 0 10000 PS = 0

002366	010701			SCOPE		
002370	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
002374	012701	000001		MOV	#1,%011	;LOAD R0!1 WITH 1
002400	000241			CLC		
002402	073027	000014		ASHC	#14,%0	;SHIFT R0,R0!1 BY 14
002406	013767	177776	012334	MOV	@#PS,PSW	;SAVE PS
002414	122767	000000	012326	CMPB	#0,PSW	;IS THE PS 0?
002422	001401			BEQ	,+4	
002424	000000			HLT		;THE PS IS NOT EQUAL TO 0
002426	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
002432	001401			BEQ	,+4	
002434	000000			HLT		;R0 IS NOT EQUAL TO 0
002436	022701	010000		CMP	#10000,%0!1	;IS THE RESULT 10000?
002442	001401			BEQ	,+4	
002444	000000			HLT		;R0!1 IS NOT EQUAL TO 10000

 TEST 21 0 1 SHIFTED BY 15 = 0 20000 PS = 0

002446	010701			SCOPE		
002450	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
002454	012701	000001		MOV	#1,X011	ILOAD R0!1 WITH 1
002460	000241			CLC		
002462	073027	000015		ASHC	#15,X0	ISHIFT R0,R0!1 BY 15
002466	013767	177776	012254	MOV	@#PS,PSW	ISAVE PS
002474	122767	000000	012246	CMPB	#0,PSW	IS THE PS 0?
002502	001401			BEQ	,+4	
002504	000000			HLT		ITHE PS IS NOT EQUAL TO 0
002506	022700	000000		CMP	#0,X0	IS THE RESULT 0?
002512	001401			BEQ	,+4	
002514	000000			HLT		IR0 IS NOT EQUAL TO 0
002516	022701	020000		CMP	#20000,X011	IS THE RESULT 20000?
002522	001401			BEQ	,+4	
002524	000000			HLT		IR0!1 IS NOT EQUAL TO 20000

 TEST 22 0 1 SHIFTED BY 16 = 0 40000 PS = 0

002526	010701			SCOPE		
002530	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
002534	012701	000001		MOV	#1,X011	ILOAD R0!1 WITH 1
002540	000241			CLC		
002542	073027	000016		ASHC	#16,X0	ISHIFT R0,R0!1 BY 16
002546	013767	177776	012174	MOV	@#PS,PSW	ISAVE PS
002554	122767	000000	012166	CMPB	#0,PSW	IS THE PS 0?
002562	001401			BEQ	,+4	
002564	000000			HLT		ITHE PS IS NOT EQUAL TO 0
002566	022700	000000		CMP	#0,X0	IS THE RESULT 0?
002572	001401			BEQ	,+4	
002574	000000			HLT		IR0 IS NOT EQUAL TO 0
002576	022701	040000		CMP	#40000,X011	IS THE RESULT 40000?
002602	001401			BEQ	,+4	
002604	000000			HLT		IR0!1 IS NOT EQUAL TO 40000

 ;TEST 23 0 1 SHIFTED BY 17 = 0 100000 PS = 0

002606	010701			SCOPE		
002610	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
002614	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
002620	000241			CLC		
002622	073027	000017		ASHC	#17,X0	;SHIFT R0,R0!1 BY 17
002626	013767	177776	012114	MOV	@#PS,PSW	;SAVE PS
002634	122767	000000	012106	CMPB	#0,PSW	;IS THE PS 0?
002642	001401			BEQ	.,+4	
002644	000000			HLT		;THE PS IS NOT EQUAL TO 0
002646	022700	000000		CMP	#0,X0	;IS THE RESULT 0?
002652	001401			BEQ	.,+4	
002654	000000			HLT		;R0 IS NOT EQUAL TO 0
002656	022701	100000		CMP	#100000,X011	;IS THE RESULT 100000?
002662	001401			BEQ	.,+4	
002664	000000			HLT		;R0!1 IS NOT EQUAL TO 100000

 ;TEST 24 0 1 SHIFTED BY 20 = 1 0 PS = 0

002666	010701			SCOPE		
002670	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
002674	012701	000001		MOV	#1,X0!1	;LOAD R0!1 WITH 1
002700	000241			CLC		
002702	073027	000020		ASHC	#20,X0	;SHIFT R0,R0!1 BY 20
002706	013767	177776	012034	MOV	@#PS,PSW	;SAVE PS
002714	122767	000000	012026	CMPB	#0,PSW	;IS THE PS 0?
002722	001401			BEQ	.,+4	
002724	000000			HLT		;THE PS IS NOT EQUAL TO 0
002726	022700	000001		CMP	#1,X0	;IS THE RESULT 1?
002732	001401			BEQ	.,+4	
002734	000000			HLT		;R0 IS NOT EQUAL TO 1
002736	022701	000000		CMP	#0,X0!1	;IS THE RESULT 0?
002742	001401			BEQ	.,+4	
002744	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 TEST 25 0 1 SHIFTED BY 21 = 2 0 PS = 0

002746	010701			SCOPE		
002750	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
002754	012701	000001		MOV	#1,X011	ILOAD R0!1 WITH 1
002760	000241			CLC		
002762	073027	000021		ASHC	#21,X0	ISHIFT R0,R0!1 BY 21
002766	013767	177776	011754	MOV	@#PS,PSW	ISAVE PS
002774	122767	000000	011746	CMPB	#0,PSW	IIS THE PS 0?
003002	001401			BEQ	,+4	
003004	000000			HLT		I THE PS IS NOT EQUAL TO 0
003006	022700	000002		CMP	#2,X0	IIS THE RESULT 2?
003012	001401			BEQ	,+4	
003014	000000			HLT		IR0 IS NOT EQUAL TO 2
003016	022701	000000		CMP	#0,X011	IIS THE RESULT 0?
003022	001401			BEQ	,+4	
003024	000000			HLT		IR0!1 IS NOT EQUAL TO 0

 TEST 26 0 1 SHIFTED BY 22 = 4 0 PS = 0

003026	010701			SCOPE		
003030	012700	000000		MOV	#0,X0	ILOAD R0 WITH 0
003034	012701	000001		MOV	#1,X011	ILOAD R0!1 WITH 1
003040	000241			CLC		
003042	073027	000022		ASHC	#22,X0	ISHIFT R0,R0!1 BY 22
003046	013767	177776	011674	MOV	@#PS,PSW	ISAVE PS
003054	122767	000000	011666	CMPB	#0,PSW	IIS THE PS 0?
003062	001401			BEQ	,+4	
003064	000000			HLT		I THE PS IS NOT EQUAL TO 0
003066	022700	000004		CMP	#4,X0	IIS THE RESULT 4?
003072	001401			BEQ	,+4	
003074	000000			HLT		IR0 IS NOT EQUAL TO 4
003076	022701	000000		CMP	#0,X011	IIS THE RESULT 0?
003102	001401			BEQ	,+4	
003104	000000			HLT		IR0!1 IS NOT EQUAL TO 0

 ;TEST 27 0 1 SHIFTED BY 23 = 10 0 PS = 0

003106	010701			SCOPE		
003110	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003114	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
003120	000241			CLC		
003122	073027	000023		ASHC	#23,X0	;SHIFT R0,R0!1 BY 23
003126	013767	177776	011614	MOV	@#PS,PSW	;SAVE PS
003134	122767	000000	011606	CMPB	#0,PSW	;IS THE PS 0?
003142	001401			BEQ	,+4	
003144	000000			HLT		;THE PS IS NOT EQUAL TO 0
003146	022700	000010		CMP	#10,X0	;IS THE RESULT 10?
003152	001401			BEQ	,+4	
003154	000000			HLT		;R0 IS NOT EQUAL TO 10
003156	022701	000000		CMP	#0,X011	;IS THE RESULT 0?
003162	001401			BEQ	,+4	
003164	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 30 0 1 SHIFTED BY 24 = 20 0 PS = 0

003166	010701			SCOPE		
003170	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003174	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
003200	000241			CLC		
003202	073027	000024		ASHC	#24,X0	;SHIFT R0,R0!1 BY 24
003206	013767	177776	011534	MOV	@#PS,PSW	;SAVE PS
003214	122767	000000	011526	CMPB	#0,PSW	;IS THE PS 0?
003222	001401			BEQ	,+4	
003224	000000			HLT		;THE PS IS NOT EQUAL TO 0
003226	022700	000020		CMP	#20,X0	;IS THE RESULT 20?
003232	001401			BEQ	,+4	
003234	000000			HLT		;R0 IS NOT EQUAL TO 20
003236	022701	000000		CMP	#0,X011	;IS THE RESULT 0?
003242	001401			BEQ	,+4	
003244	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 TEST 31 0 1 SHIFTED BY 25 = 40 0 PS = 0

003246	010701			SCOPE		
003250	012700	000000		MOV	#0,%0	ILOAD R0 WITH 0
003254	012701	000001		MOV	#1,%011	ILOAD R0:1 WITH 1
003260	000241			CLC		
003262	073027	000025		ASHC	#25,%0	ISHIFT R0,R0:1 BY 25
003266	013767	177776	011454	MOV	#PS,PSW	ISAVE PS
003274	122767	000000	011446	CMPB	#0,PSW	IS THE PS 0?
003302	001401			BEQ	,+4	
003304	000000			HLT		ITHE PS IS NOT EQUAL TO 0
003306	022700	000040		CMP	#40,%0	IS THE RESULT 40?
003312	001401			BEQ	,+4	
003314	000000			HLT		IR0 IS NOT EQUAL TO 40
003316	022701	000000		CMP	#0,%011	IS THE RESULT 0?
003322	001401			BEQ	,+4	
003324	000000			HLT		IR0:1 IS NOT EQUAL TO 0

 TEST 32 0 1 SHIFTED BY 26 = 100 0 PS = 0

003326	010701			SCOPE		
003330	012700	000000		MOV	#0,%0	ILOAD R0 WITH 0
003334	012701	000001		MOV	#1,%011	ILOAD R0:1 WITH 1
003340	000241			CLC		
003342	073027	000026		ASHC	#26,%0	ISHIFT R0,R0:1 BY 26
003346	013767	177776	011374	MOV	#PS,PSW	ISAVE PS
003354	122767	000000	011366	CMPB	#0,PSW	IS THE PS 0?
003362	001401			BEQ	,+4	
003364	000000			HLT		ITHE PS IS NOT EQUAL TO 0
003366	022700	000100		CMP	#100,%0	IS THE RESULT 100?
003372	001401			BEQ	,+4	
003374	000000			HLT		IR0 IS NOT EQUAL TO 100
003376	022701	000000		CMP	#0,%011	IS THE RESULT 0?
003402	001401			BEQ	,+4	
003404	000000			HLT		IR0:1 IS NOT EQUAL TO 0

 ;TEST 33 0 1 SHIFTED BY 27 * 200 0 PS = 0

003406	010701			SCOPE		
003410	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003414	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
003420	000241			CLC		
003422	073027	000027		ASHC	#27,X0	;SHIFT R0,R0!1 BY 27
003426	013767	177776	011314	MOV	@#PS,PSW	;SAVE PS
003434	122767	000000	011306	CMPB	#0,PSW	;IS THE PS 0?
003442	001401			BEQ	,+4	
003444	000000			HLT		;THE PS IS NOT EQUAL TO 0
003446	022700	000200		CMP	#200,X0	;IS THE RESULT 200?
003452	001401			BEQ	,+4	
003454	000000			HLT		;R0 IS NOT EQUAL TO 200
003456	022701	000000		CMP	#0,X011	;IS THE RESULT 0?
003462	001401			BEQ	,+4	
003464	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 34 0 1 SHIFTED BY 30 * 400 0 PS = 0

003466	010701			SCOPE		
003470	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003474	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
003500	000241			CLC		
003502	073027	000030		ASHC	#30,X0	;SHIFT R0,R0!1 BY 30
003506	013767	177776	011234	MOV	@#PS,PSW	;SAVE PS
003514	122767	000000	011226	CMPB	#0,PSW	;IS THE PS 0?
003522	001401			BEQ	,+4	
003524	000000			HLT		;THE PS IS NOT EQUAL TO 0
003526	022700	000400		CMP	#400,X0	;IS THE RESULT 400?
003532	001401			BEQ	,+4	
003534	000000			HLT		;R0 IS NOT EQUAL TO 400
003536	022701	000000		CMP	#0,X011	;IS THE RESULT 0?
003542	001401			BEQ	,+4	
003544	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 TEST 35 0 1 SHIFTED BY 31 = 1000 0 PS = 0

003546	010701			SCOPE		
003550	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003554	012701	000001		MOV	#1,X011	;LOAD R0:1 WITH 1
003560	000241			CLC		
003562	073027	000031		ASHC	#31,X0	;SHIFT R0,R0:1 BY 31
003566	013767	177776	011154	MOV	@#PS,PSW	;SAVE PS
003574	122767	000000	011146	CMPB	#0,PSW	;IS THE PS 0?
003602	001401			BEQ	,+4	
003604	000000			HLT		;THE PS IS NOT EQUAL TO 0
003606	022700	001000		CMP	#1000,X0	;IS THE RESULT 1000?
003612	001401			BEQ	,+4	
003614	000000			HLT		;R0 IS NOT EQUAL TO 1000
003616	022701	000000		CMP	#0,X0:11	;IS THE RESULT 0?
003622	001401			BEQ	,+4	
003624	000000			HLT		;R0:1 IS NOT EQUAL TO 0

 TEST 36 0 1 SHIFTED BY 32 = 2000 0 PS = 0

003626	010701			SCOPE		
003630	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003634	012701	000001		MOV	#1,X0:11	;LOAD R0:1 WITH 1
003640	000241			CLC		
003642	073027	000032		ASHC	#32,X0	;SHIFT R0,R0:1 BY 32
003646	013767	177776	011074	MOV	@#PS,PSW	;SAVE PS
003654	122767	000000	011066	CMPB	#0,PSW	;IS THE PS 0?
003662	001401			BEQ	,+4	
003664	000000			HLT		;THE PS IS NOT EQUAL TO 0
003666	022700	002000		CMP	#2000,X0	;IS THE RESULT 2000?
003672	001401			BEQ	,+4	
003674	000000			HLT		;R0 IS NOT EQUAL TO 2000
003676	022701	000000		CMP	#0,X0:11	;IS THE RESULT 0?
003702	001401			BEQ	,+4	
003704	000000			HLT		;R0:1 IS NOT EQUAL TO 0

;TEST 37 0 1 SHIFTED BY 33 = 4000 0 PS = 0

003706	010701			SCOPE		
003710	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003714	012701	000001		MOV	#1,X011	;LOAD R0!1 WITH 1
003720	000241			CLC		
003722	073027	000033		ASHC	#33,X0	;SHIFT R0,R0!1 BY 33
003726	013767	177776	011014	MOV	@#PS,PSW	;SAVE PS
003734	122767	000000	011006	CMPB	#0,PSW	;IS THE PS 0?
003742	001401			BEQ	.+4	
003744	000000			HLT		;THE PS IS NOT EQUAL TO 0
003746	022700	004000		CMP	#4000,X0	;IS THE RESULT 4000?
003752	001401			BEQ	.+4	
003754	000000			HLT		;R0 IS NOT EQUAL TO 4000
003756	022701	000000		CMP	#0,X0!1	;IS THE RESULT 0?
003762	001401			BEQ	.+4	
003764	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 40 0 1 SHIFTED BY 34 = 10000 0 PS = 0

003766	010701			SCOPE		
003770	012700	000000		MOV	#0,X0	;LOAD R0 WITH 0
003774	012701	000001		MOV	#1,X0!1	;LOAD R0!1 WITH 1
004000	000241			CLC		
004002	073027	000034		ASHC	#34,X0	;SHIFT R0,R0!1 BY 34
004006	013767	177776	010734	MOV	@#PS,PSW	;SAVE PS
004014	122767	000000	010726	CMPB	#0,PSW	;IS THE PS 0?
004022	001401			BEQ	.+4	
004024	000000			HLT		;THE PS IS NOT EQUAL TO 0
004026	022700	010000		CMP	#10000,X0	;IS THE RESULT 10000?
004032	001401			BEQ	.+4	
004034	000000			HLT		;R0 IS NOT EQUAL TO 10000
004036	022701	000000		CMP	#0,X0!1	;IS THE RESULT 0?
004038	001401			BEQ	.+4	
004044	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 41 0 1 SHIFTED BY 35 = 20000 0 PS = 0

004046	010701			SCOPE		
004050	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
004054	012701	000001		MOV	#1,%0!1	;LOAD R0!1 WITH 1
004060	000241			CLC		
004062	073027	000035		ASHC	#35,%0	;SHIFT R0,R0!1 BY 35
004066	013767	177776	010654	MOV	@#PS,PSW	;SAVE PS
004070	122767	000000	010646	CMPB	#0,PSW	;IS THE PS 0?
004102	001401			BEQ	.,+4	
004104	000000			HLT		;THE PS IS NOT EQUAL TO 0
004106	022700	020000		CMP	#20000,%0	;IS THE RESULT 20000?
004112	001401			BEQ	.,+4	
004114	000000			HLT		;R0 IS NOT EQUAL TO 20000
004116	022701	000000		CMP	#0,%0!1	;IS THE RESULT 0?
004122	001401			BEQ	.,+4	
004124	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 42 0 1 SHIFTED BY 36 = 40000 0 PS = 0

004126	010701			SCOPE		
004130	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
004134	012701	000001		MOV	#1,%0!1	;LOAD R0!1 WITH 1
004140	000241			CLC		
004142	073027	000036		ASHC	#36,%0	;SHIFT R0,R0!1 BY 36
004146	013767	177776	010574	MOV	@#PS,PSW	;SAVE PS
004154	122767	000000	010566	CMPB	#0,PSW	;IS THE PS 0?
004162	001401			BEQ	.,+4	
004164	000000			HLT		;THE PS IS NOT EQUAL TO 0
004166	022700	040000		CMP	#40000,%0	;IS THE RESULT 40000?
004172	001401			BEQ	.,+4	
004174	000000			HLT		;R0 IS NOT EQUAL TO 40000
004176	022701	000000		CMP	#0,%0!1	;IS THE RESULT 0?
004202	001401			BEQ	.,+4	
004204	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 43 40000 0 SHIFTED BY 177762 = 1 0 PS = 0

004206	010701			SCOPE		
004210	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004214	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004220	000241			CLC		
004222	073027	177762		ASHC	#177762,%0	;SHIFT R0,R0!1 BY 177762
004226	013767	177776	010514	MOV	@#PS,PSW	;SAVE PS
004234	122767	000000	010506	CMPB	#0,PSW	;IS THE PS 0?
004242	001401			BEQ	,+4	
004244	000000			HLT		;THE PS IS NOT EQUAL TO 0
004246	022700	000001		CMP	#1,%0	;IS THE RESULT 1?
004252	001401			BEQ	,+4	
004254	000000			HLT		;R0 IS NOT EQUAL TO 1
004256	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004262	001401			BEQ	,+4	
004264	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 44 40000 0 SHIFTED BY 177763 = 2 0 PS = 0

004266	010701			SCOPE		
004270	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004274	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004300	000241			CLC		
004302	073027	177763		ASHC	#177763,%0	;SHIFT R0,R0!1 BY 177763
004306	013767	177776	010434	MOV	@#PS,PSW	;SAVE PS
004314	122767	000000	010426	CMPB	#0,PSW	;IS THE PS 0?
004322	001401			BEQ	,+4	
004324	000000			HLT		;THE PS IS NOT EQUAL TO 0
004326	022700	000002		CMP	#2,%0	;IS THE RESULT 2?
004332	001401			BEQ	,+4	
004334	000000			HLT		;R0 IS NOT EQUAL TO 2
004336	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004342	001401			BEQ	,+4	
004344	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 45 40000 0 SHIFTED BY 177764 = 4 0 PS = 0
 ;*****

004346	010701			SCOPE		
004350	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004354	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004360	000241			CLC		
004362	073027	177764		ASHC	#177764,%0	;SHIFT R0,R0!1 BY 177764
004366	013767	177776	010354	MOV	0#PS,PSW	;SAVE PS
004374	122767	000000	010346	CMPB	#0,PSW	;IS THE PS 0?
004402	001401			BEQ	.*4	
004404	000000			HLT		;THE PS IS NOT EQUAL TO 0
004406	022700	000004		CMP	#4,%0	;IS THE RESULT 4?
004412	001401			BEQ	.*4	
004414	000000			HLT		;R0 IS NOT EQUAL TO 4
004416	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004422	001401			BEQ	.*4	
004424	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 46 40000 0 SHIFTED BY 177765 = 10 0 PS = 0
 ;*****

004426	010701			SCOPE		
004430	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004434	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004440	000241			CLC		
004442	073027	177765		ASHC	#177765,%0	;SHIFT R0,R0!1 BY 177765
004446	013767	177776	010274	MOV	0#PS,PSW	;SAVE PS
004454	122767	000000	010266	CMPB	#0,PSW	;IS THE PS 0?
004462	001401			BEQ	.*4	
004464	000000			HLT		;THE PS IS NOT EQUAL TO 0
004466	022700	000010		CMP	#10,%0	;IS THE RESULT 10?
004472	001401			BEQ	.*4	
004474	000000			HLT		;R0 IS NOT EQUAL TO 10
004476	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004502	001401			BEQ	.*4	
004504	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 47 40000 0 SHIFTED BY 177766 = 20 0 PS = 0

004506	010701			SCOPE		
004510	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004514	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004520	000241			CLC		
004522	073027	177766		ASHC	#177766,%0	;SHIFT R0,R0!1 BY 177766
004526	013767	177776	010214	MOV	@#PS,PSW	;SAVE PS
004534	122767	000000	010206	CMPB	#0,PSW	;IS THE PS 0?
004542	001401			BEQ	+.4	
004544	000000			HLT		;THE PS IS NOT EQUAL TO 0
004546	022700	000020		CMP	#20,%0	;IS THE RESULT 20?
004552	001401			BEQ	+.4	
004554	000000			HLT		;R0 IS NOT EQUAL TO 20
004556	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004562	001401			BEQ	+.4	
004564	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 50 40000 0 SHIFTED BY 177767 = 40 0 PS = 0

004566	010701			SCOPE		
004570	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
004574	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
004600	000241			CLC		
004602	073027	177767		ASHC	#177767,%0	;SHIFT R0,R0!1 BY 177767
004606	013767	177776	010134	MOV	@#PS,PSW	;SAVE PS
004614	122767	000000	010126	CMPB	#0,PSW	;IS THE PS 0?
004622	001401			BEQ	+.4	
004624	000000			HLT		;THE PS IS NOT EQUAL TO 0
004626	022700	000040		CMP	#40,%0	;IS THE RESULT 40?
004632	001401			BEQ	+.4	
004634	000000			HLT		;R0 IS NOT EQUAL TO 40
004636	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
004642	001401			BEQ	+.4	
004644	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 51 40000 0 SHIFTED BY 17770 = 100 0 PS = 0

004646	010701		SCOPE		
004650	012700	040000	MOV	#40000,%0	;LOAD R0 WITH 40000
004654	012701	000000	MOV	#0,%011	;LOAD R0!1 WITH 0
004660	000241		CLC		
004662	073027	177770	ASHC	#177770,%0	;SHIFT R0,R0!1 BY 177770
004666	013767	177776	MOV	@#PS,PSW	;SAVE PS
004674	122767	000000	CMPB	#0,PSW	;IS THE PS 0?
004702	001401		BEQ	,+4	
004704	000000		HLT		;THE PS IS NOT EQUAL TO 0
004706	022700	000100	CMP	#100,%0	;IS THE RESULT 100?
004712	001401		BEQ	,+4	
004714	000000		HLT		;R0 IS NOT EQUAL TO 100
004716	022701	000000	CMP	#0,%011	;IS THE RESULT 0?
004722	001401		BEQ	,+4	
004724	000000		HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 52 40000 0 SHIFTED BY 17771 = 200 0 PS = 0

004726	010701		SCOPE		
004730	012700	040000	MOV	#40000,%0	;LOAD R0 WITH 40000
004734	012701	000000	MOV	#0,%011	;LOAD R0!1 WITH 0
004740	000241		CLC		
004742	073027	177771	ASHC	#177771,%0	;SHIFT R0,R0!1 BY 177771
004746	013767	177776	MOV	@#PS,PSW	;SAVE PS
004754	122767	000000	CMPB	#0,PSW	;IS THE PS 0?
004762	001401		BEQ	,+4	
004764	000000		HLT		;THE PS IS NOT EQUAL TO 0
004766	022700	000200	CMP	#200,%0	;IS THE RESULT 200?
004772	001401		BEQ	,+4	
004774	000000		HLT		;R0 IS NOT EQUAL TO 200
004776	022701	000000	CMP	#0,%011	;IS THE RESULT 0?
005002	001401		BEQ	,+4	
005004	000000		HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 53 40000 0 SHIFTED BY 177772 = 400 0 PS = 0

005006	010701			SCOPE		
005010	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005014	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
005020	000241			CLC		
005022	073027	177772		ASHC	#177772,%0	;SHIFT R0,R0!1 BY 177772
005026	013767	177776	007714	MOV	@#PS,PSW	;SAVE PS
005034	122767	000000	007706	CMPB	#0,PSW	;IS THE PS 0?
005042	001401			BEQ	,+4	
005044	000000			HLT		;THE PS IS NOT EQUAL TO 0
005046	022700	000400		CMP	#400,%0	;IS THE RESULT 400?
005052	001401			BEQ	,+4	
005054	000000			HLT		;R0 IS NOT EQUAL TO 400
005056	022701	000000		CMP	#0,%0!1	;IS THE RESULT 0?
005062	001401			BEQ	,+4	
005064	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 54 40000 0 SHIFTED BY 177773 = 1000 0 PS = 0

005066	010701			SCOPE		
005070	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005074	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
005100	000241			CLC		
005102	073027	177773		ASHC	#177773,%0	;SHIFT R0,R0!1 BY 177773
005106	013767	177776	007634	MOV	@#PS,PSW	;SAVE PS
005114	122767	000000	007626	CMPB	#0,PSW	;IS THE PS 0?
005122	001401			BEQ	,+4	
005124	000000			HLT		;THE PS IS NOT EQUAL TO 0
005126	022700	001000		CMP	#1000,%0	;IS THE RESULT 1000?
005132	001401			BEQ	,+4	
005134	000000			HLT		;R0 IS NOT EQUAL TO 1000
005136	022701	000000		CMP	#0,%0!1	;IS THE RESULT 0?
005142	001401			BEQ	,+4	
005144	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 55 40000 0 SHIFTED BY 17774 = 2000 0 PS = 0

005146	010701			SCOPE		
005150	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005154	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
005160	000241			CLC		
005162	073027	177774		ASHC	#177774,%0	;SHIFT R0,R0:1 BY 17774
005166	013767	177776	007554	MOV	0#PS,PSW	;SAVE PS
005174	122767	000000	007546	CMPB	#0,PSW	;IS THE PS 0?
005202	001401			BEQ	,+4	
005204	000000			HLT		;THE PS IS NOT EQUAL TO 0
005206	022700	002000		CMP	#2000,%0	;IS THE RESULT 2000?
005212	001401			BEQ	,+4	
005214	000000			HLT		;R0 IS NOT EQUAL TO 2000
005216	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
005222	001401			BEQ	,+4	
005224	000000			HLT		;R0:1 IS NOT EQUAL TO 0

;TEST 56 40000 0 SHIFTED BY 17775 = 4000 0 PS = 0

005226	010701			SCOPE		
005230	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005234	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
005240	000241			CLC		
005242	073027	177775		ASHC	#177775,%0	;SHIFT R0,R0:1 BY 17775
005246	013767	177776	007474	MOV	0#PS,PSW	;SAVE PS
005254	122767	000000	007466	CMPB	#0,PSW	;IS THE PS 0?
005262	001401			BEQ	,+4	
005264	000000			HLT		;THE PS IS NOT EQUAL TO 0
005266	022700	004000		CMP	#4000,%0	;IS THE RESULT 4000?
005272	001401			BEQ	,+4	
005274	000000			HLT		;R0 IS NOT EQUAL TO 4000
005276	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
005302	001401			BEQ	,+4	
005304	000000			HLT		;R0:1 IS NOT EQUAL TO 0

;TEST 57 40000 0 SHIFTED BY 177776 = 10000 0 PS = 0

005306	010701			SCOPE		
005310	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005314	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
005320	000241			CLC		
005322	073027	177776		ASHC	#177776,%0	;SHIFT R0,R0!1 BY 177776
005326	013767	177776	007414	MOV	@#PS,PSW	;SAVE PS
005334	122767	000000	007406	CMPB	#0,PSW	;IS THE PS 0?
005342	001401			BEQ	,+4	
005344	000000			HLT		;THE PS IS NOT EQUAL TO 0
005346	022700	010000		CMP	#10000,%0	;IS THE RESULT 10000?
005352	001401			BEQ	,+4	
005354	000000			HLT		;R0 IS NOT EQUAL TO 10000
005356	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
005362	001401			BEQ	,+4	
005364	000000			HLT		;R0!1 IS NOT EQUAL TO 0

;TEST 60 40000 0 SHIFTED BY 177777 = 20000 0 PS = 0

005366	010701			SCOPE		
005370	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005374	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
005400	000241			CLC		
005402	073027	177777		ASHC	#177777,%0	;SHIFT R0,R0!1 BY 177777
005406	013767	177776	007334	MOV	@#PS,PSW	;SAVE PS
005414	122767	000000	007326	CMPB	#0,PSW	;IS THE PS 0?
005422	001401			BEQ	,+4	
005424	000000			HLT		;THE PS IS NOT EQUAL TO 0
005426	022700	020000		CMP	#20000,%0	;IS THE RESULT 20000?
005432	001401			BEQ	,+4	
005434	000000			HLT		;R0 IS NOT EQUAL TO 20000
005436	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
005442	001401			BEQ	,+4	
005444	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 61 40000 0 SHIFTED BY 0 = 40000 0 PS = 0

005446	010701			SCOPE		
005450	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005454	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
005460	000241			CLC		
005462	073027	000000		ASHC	#0,%0	;SHIFT R0,R0:1 BY 0
005466	013767	177776	007254	MOV	@#PS,PSW	;SAVE PS
005474	122767	000000	007246	CMPB	#0,PSW	;IS THE PS 0?
005502	001401			BEQ	,+4	
005504	000000			HLT		;THE PS IS NOT EQUAL TO 0
005506	022700	040000		CMP	#40000,%0	;IS THE RESULT 40000?
005512	001401			BEQ	,+4	
005514	000000			HLT		;R0 IS NOT EQUAL TO 40000
005516	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
005522	001401			BEQ	,+4	
005524	000000			HLT		;R0:1 IS NOT EQUAL TO 0

 ;TEST 62 40000 0 SHIFTED BY 177742 = 0 1 PS = 0

005526	010701			SCOPE		
005530	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005534	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
005540	000241			CLC		
005542	073027	177742		ASHC	#177742,%0	;SHIFT R0,R0:1 BY 177742
005546	013767	177776	007174	MOV	@#PS,PSW	;SAVE PS
005554	122767	000000	007166	CMPB	#0,PSW	;IS THE PS 0?
005562	001401			BEQ	,+4	
005564	000000			HLT		;THE PS IS NOT EQUAL TO 0
005566	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
005572	001401			BEQ	,+4	
005574	000000			HLT		;R0 IS NOT EQUAL TO 0
005576	022701	000001		CMP	#1,%0:1	;IS THE RESULT 1?
005602	001401			BEQ	,+4	
005604	000000			HLT		;R0:1 IS NOT EQUAL TO 1

;TEST 63 40000 0 SHIFTED BY 177743 = 0 2 PS = 0

005606	010701			SCOPE	
005610	012700	040000		MOV	#40000,%0 ;LOAD R0 WITH 40000
005614	012701	000000		MOV	#0,%011 ;LOAD R0!1 WITH 0
005620	000241			CLC	
005622	073027	177743		ASHC	#177743,%0 ;SHIFT R0,R0!1 BY 177743
005626	013767	177776	007114	MOV	@#PS,PSW ;SAVE PS
005634	122767	000000	007106	CMPB	#0,PSW ;IS THE PS 0?
005642	001401			BEQ	,+4
005644	000000			HLT	;THE PS IS NOT EQUAL TO 0
005646	022700	000000		CMP	#0,%0 ;IS THE RESULT 0?
005652	001401			BEQ	,+4
005654	000000			HLT	;R0 IS NOT EQUAL TO 0
005656	022701	000002		CMP	#2,%011 ;IS THE RESULT 2?
005662	001401			BEQ	,+4
005664	000000			HLT	;R0!1 IS NOT EQUAL TO 2

;TEST 64 40000 0 SHIFTED BY 177744 = 0 4 PS = 0

005666	010701			SCOPE	
005670	012700	040000		MOV	#40000,%0 ;LOAD R0 WITH 40000
005674	012701	000000		MOV	#0,%011 ;LOAD R0!1 WITH 0
005700	000241			CLC	
005702	073027	177744		ASHC	#177744,%0 ;SHIFT R0,R0!1 BY 177744
005706	013767	177776	007034	MOV	@#PS,PSW ;SAVE PS
005714	122767	000000	007026	CMPB	#0,PSW ;IS THE PS 0?
005722	001401			BEQ	,+4
005724	000000			HLT	;THE PS IS NOT EQUAL TO 0
005726	022700	000000		CMP	#0,%0 ;IS THE RESULT 0?
005732	001401			BEQ	,+4
005734	000000			HLT	;R0 IS NOT EQUAL TO 0
005736	022701	000004		CMP	#4,%011 ;IS THE RESULT 4?
005742	001401			BEQ	,+4
005744	000000			HLT	;R0!1 IS NOT EQUAL TO 4

 ;TEST 65 40000 0 SHIFTED BY 177745 = 0 10 PS = 0

005746	010701			SCOPE		
005750	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
005754	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
005760	000241			CLC		
005762	073027	177745		ASHC	#177745,%0	;SHIFT R0,R0!1 BY 177745
005766	013767	177776	006754	MOV	@#PS,PSW	;SAVE PS
005774	122767	000000	006746	CMPB	#0,PSW	;IS THE PS 0?
006002	001401			BEQ	.,+4	
006004	000000			HLT		;THE PS IS NOT EQUAL TO 0
006006	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006012	001401			BEQ	.,+4	
006014	000000			HLT		;R0 IS NOT EQUAL TO 0
006016	022701	000010		CMP	#10,%0!1	;IS THE RESULT 10?
006022	001401			BEQ	.,+4	
006024	000000			HLT		;R0!1 IS NOT EQUAL TO 10

 ;TEST 66 40000 0 SHIFTED BY 177746 = 0 20 PS = 0

006026	010701			SCOPE		
006030	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006034	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
006040	000241			CLC		
006042	073027	177746		ASHC	#177746,%0	;SHIFT R0,R0!1 BY 177746
006046	013767	177776	006674	MOV	@#PS,PSW	;SAVE PS
006054	122767	000000	006666	CMPB	#0,PSW	;IS THE PS 0?
006062	001401			BEQ	.,+4	
006064	000000			HLT		;THE PS IS NOT EQUAL TO 0
006066	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006072	001401			BEQ	.,+4	
006074	000000			HLT		;R0 IS NOT EQUAL TO 0
006076	022701	000020		CMP	#20,%0!1	;IS THE RESULT 20?
006102	001401			BEQ	.,+4	
006104	000000			HLT		;R0!1 IS NOT EQUAL TO 20

;TEST 67 40000 0 SHIFTED BY 177747 = 0 40 PS = 0

006106	010701			SCOPE		
006110	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006114	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
006120	000241			CLC		
006122	073027	177747		ASHC	#177747,%0	;SHIFT R0,R0:1 BY 177747
006126	013767	177776	006614	MOV	@#PS,PSW	;SAVE PS
006134	122767	000000	006606	CMPB	#0,PSW	;IS THE PS 0?
006142	001401			BEQ	,+4	
006144	000000			HLT		;THE PS IS NOT EQUAL TO 0
006146	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006152	001401			BEQ	,+4	
006154	000000			HLT		;R0 IS NOT EQUAL TO 0
006156	022701	000040		CMP	#40,%011	;IS THE RESULT 40?
006162	001401			BEQ	,+4	
006164	000000			HLT		;R0:1 IS NOT EQUAL TO 40

;TEST 70 40000 0 SHIFTED BY 177750 = 0 100 PS = 0

006166	010701			SCOPE		
006170	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006174	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
006200	000241			CLC		
006202	073027	177750		ASHC	#177750,%0	;SHIFT R0,R0:1 BY 177750
006206	013767	177776	006534	MOV	@#PS,PSW	;SAVE PS
006214	122767	000000	006526	CMPB	#0,PSW	;IS THE PS 0?
006222	001401			BEQ	,+4	
006224	000000			HLT		;THE PS IS NOT EQUAL TO 0
006226	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006232	001401			BEQ	,+4	
006234	000000			HLT		;R0 IS NOT EQUAL TO 0
006236	022701	000100		CMP	#100,%011	;IS THE RESULT 100?
006242	001401			BEQ	,+4	
006244	000000			HLT		;R0:1 IS NOT EQUAL TO 100

 ;TEST 71 40000 0 SHIFTED BY 17751 = 0 200 PS = 0

006246	010701			SCOPE		
006250	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006254	012701	000000		MOV	#0,%0:1	;LOAD R0:1 WITH 0
006260	000241			CLC		
006262	073027	177751		ASHC	#177751,%0	;SHIFT R0,R0:1 BY 177751
006266	013767	177776	006454	MOV	@#PS,PSW	;SAVE PS
006274	122767	000000	006446	CMPB	#0,PSW	;IS THE PS 0?
006302	001401			BEQ	,+4	
006304	000000			HLT		;THE PS IS NOT EQUAL TO 0
006306	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006312	001401			BEQ	,+4	
006314	000000			HLT		;R0 IS NOT EQUAL TO 0
006316	022701	000200		CMP	#200,%0:1	;IS THE RESULT 200?
006322	001401			BEQ	,+4	
006324	000000			HLT		;R0:1 IS NOT EQUAL TO 200

 ;TEST 72 40000 0 SHIFTED BY 17752 = 0 400 PS = 0

006326	010701			SCOPE		
006330	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006334	012701	000000		MOV	#0,%0:1	;LOAD R0:1 WITH 0
006340	000241			CLC		
006342	073027	177752		ASHC	#177752,%0	;SHIFT R0,R0:1 BY 177752
006346	013767	177776	006374	MOV	@#PS,PSW	;SAVE PS
006354	122767	000000	006366	CMPB	#0,PSW	;IS THE PS 0?
006362	001401			BEQ	,+4	
006364	000000			HLT		;THE PS IS NOT EQUAL TO 0
006366	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006372	001401			BEQ	,+4	
006374	000000			HLT		;R0 IS NOT EQUAL TO 0
006376	022701	000400		CMP	#400,%0:1	;IS THE RESULT 400?
006402	001401			BEQ	,+4	
006404	000000			HLT		;R0:1 IS NOT EQUAL TO 400

;TEST 73 40000 0 SHIFTED BY 177753 = 0 1000 PS = 0

006406	010701			SCOPE		
006410	012700	040000		MOV	#40000,X0	;LOAD R0 WITH 40000
006414	012701	000000		MOV	#0,X011	;LOAD R0!1 WITH 0
006420	000241			CLC		
006422	073027	177753		ASHC	#177753,X0	;SHIFT R0,R0!1 BY 177753
006426	013767	177776	006314	MOV	##PS,PSW	;SAVE PS
006434	122767	000000	006306	CMPB	#0,PSW	;IS THE PS 0?
006442	001401			BEQ	,+4	
006444	000000			HLT		;THE PS IS NOT EQUAL TO 0
006446	022700	000000		CMP	#0,X0	;IS THE RESULT 0?
006452	001401			BEQ	,+4	
006454	000000			HLT		;R0 IS NOT EQUAL TO 0
006456	022701	001000		CMP	#1000,X0!1	;IS THE RESULT 1000?
006462	001401			BEQ	,+4	
006464	000000			HLT		;R0!1 IS NOT EQUAL TO 1000

;TEST 74 40000 0 SHIFTED BY 177754 = 0 2000 PS = 0

006466	010701			SCOPE		
006470	012700	040000		MOV	#40000,X0	;LOAD R0 WITH 40000
006474	012701	000000		MOV	#0,X011	;LOAD R0!1 WITH 0
006500	000241			CLC		
006502	073027	177754		ASHC	#177754,X0	;SHIFT R0,R0!1 BY 177754
006506	013767	177776	006234	MOV	##PS,PSW	;SAVE PS
006514	122767	000000	006226	CMPB	#0,PSW	;IS THE PS 0?
006522	001401			BEQ	,+4	
006524	000000			HLT		;THE PS IS NOT EQUAL TO 0
006526	022700	000000		CMP	#0,X0	;IS THE RESULT 0?
006532	001401			BEQ	,+4	
006534	000000			HLT		;R0 IS NOT EQUAL TO 0
006536	022701	002000		CMP	#2000,X0!1	;IS THE RESULT 2000?
006542	001401			BEQ	,+4	
006544	000000			HLT		;R0!1 IS NOT EQUAL TO 2000

 ;TEST 75 40000 0 SHIFTED BY 177755 = 0 4000 PS = 0

006546	010701			SCOPE		
006550	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006554	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
006560	000241			CLC		
006562	073027	177755		ASHC	#177755,%0	;SHIFT R0,R0:1 BY 177755
006566	013767	177776	006154	MOV	@#PS,PSW	;SAVE PS
006574	122767	000000	006146	CMPB	#0,PSW	;IS THE PS 0?
006602	001401			BEQ	,+4	
006604	000000			HLT		;THE PS IS NOT EQUAL TO 0
006606	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006612	001401			BEQ	,+4	
006614	000000			HLT		;R0 IS NOT EQUAL TO 0
006616	022701	004000		CMP	#4000,%011	;IS THE RESULT 4000?
006622	001401			BEQ	,+4	
006624	000000			HLT		;R0:1 IS NOT EQUAL TO 4000

 ;TEST 76 40000 0 SHIFTED BY 177756 = 0 10000 PS = 0

006626	010701			SCOPE		
006630	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
006634	012701	000000		MOV	#0,%011	;LOAD R0:1 WITH 0
006640	000241			CLC		
006642	073027	177756		ASHC	#177756,%0	;SHIFT R0,R0:1 BY 177756
006646	013767	177776	006074	MOV	@#PS,PSW	;SAVE PS
006654	122767	000000	006066	CMPB	#0,PSW	;IS THE PS 0?
006662	001401			BEQ	,+4	
006664	000000			HLT		;THE PS IS NOT EQUAL TO 0
006666	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
006672	001401			BEQ	,+4	
006674	000000			HLT		;R0 IS NOT EQUAL TO 0
006676	022701	010000		CMP	#10000,%011	;IS THE RESULT 10000?
006702	001401			BEQ	,+4	
006704	000000			HLT		;R0:1 IS NOT EQUAL TO 10000

 ;TEST 77 40000 0 SHIFTED BY 177757 = 0 20000 PS = 0

006706	010701			SCOPE	
006710	012700	040000		MOV	#40000,%0 ;LOAD R0 WITH 40000
006714	012701	000000		MOV	#0,%011 ;LOAD R0:1 WITH 0
006720	000241			CLC	
006722	073027	177757		ASHC	#177757,%0 ;SHIFT R0,R0:1 BY 177757
006726	013767	177776	006014	MOV	@#PS,PSW ;SAVE PS
006734	122767	000000	006006	CMPB	#0,PSW ;IS THE PS 0?
006742	001401			BEQ	,+4
006744	000000			HLT	;THE PS IS NOT EQUAL TO 0
006746	022700	000000		CMP	#0,%0 ;IS THE RESULT 0?
006752	001401			BEQ	,+4
006754	000000			HLT	;R0 IS NOT EQUAL TO 0
006756	022701	020000		CMP	#20000,%011 ;IS THE RESULT 20000?
006762	001401			BEQ	,+4
006764	000000			HLT	;R0:1 IS NOT EQUAL TO 20000

 ;TEST 100 40000 0 SHIFTED BY 177760 = 0 40000 PS = 0

006766	010701			SCOPE	
006770	012700	040000		MOV	#40000,%0 ;LOAD R0 WITH 40000
006774	012701	000000		MOV	#0,%011 ;LOAD R0:1 WITH 0
007000	000241			CLC	
007002	073027	177760		ASHC	#177760,%0 ;SHIFT R0,R0:1 BY 177760
007006	013767	177776	005734	MOV	@#PS,PSW ;SAVE PS
007014	122767	000000	005726	CMPB	#0,PSW ;IS THE PS 0?
007022	001401			BEQ	,+4
007024	000000			HLT	;THE PS IS NOT EQUAL TO 0
007026	022700	000000		CMP	#0,%0 ;IS THE RESULT 0?
007032	001401			BEQ	,+4
007034	000000			HLT	;R0 IS NOT EQUAL TO 0
007036	022701	040000		CMP	#40000,%011 ;IS THE RESULT 40000?
007042	001401			BEQ	,+4
007044	000000			HLT	;R0:1 IS NOT EQUAL TO 40000

 ;TEST 101 40000 0 SHIFTED BY 177761 = 0 100000 PS = 0

007046	010701			SCOPE		
007050	012700	040000		MOV	#40000,%0	;LOAD R0 WITH 40000
007054	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
007060	000241			CLC		
007062	073027	177761		ASHC	#177761,%0	;SHIFT R0,R0!1 BY 177761
007066	013767	177776	005654	MOV	@#PS,PSW	;SAVE PS
007074	122767	000000	005646	CMPB	#0,PSW	;IS THE PS 0?
007102	001401			BEQ	,+4	
007104	000000			HLT		;THE PS IS NOT EQUAL TO 0
007106	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
007112	001401			BEQ	,+4	
007114	000000			HLT		;R0 IS NOT EQUAL TO 0
007116	022701	100000		CMP	#100000,%0!1	;IS THE RESULT 100000?
007122	001401			BEQ	,+4	
007124	000000			HLT		;R0!1 IS NOT EQUAL TO 100000

 ;TEST 102 -1 0 SHIFTED BY -16, = -1 -1 PS = 10

007126	010701			SCOPE		
007130	012700	177777		MOV	#-1,%0	;LOAD R0 WITH -1
007134	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
007140	000241			CLC		
007142	073027	177760		ASHC	#-16,%0	;SHIFT R0,R0!1 BY -16,
007146	013767	177776	005574	MOV	@#PS,PSW	;SAVE PS
007154	122767	000010	005566	CMPB	#10,PSW	;IS THE PS 10?
007162	001401			BEQ	,+4	
007164	000000			HLT		;THE PS IS NOT EQUAL TO 10
007166	022700	177777		CMP	#-1,%0	;IS THE RESULT -1?
007172	001401			BEQ	,+4	
007174	000000			HLT		;R0 IS NOT EQUAL TO -1
007176	022701	177777		CMP	#-1,%0!1	;IS THE RESULT -1?
007202	001401			BEQ	,+4	
007204	000000			HLT		;R0!1 IS NOT EQUAL TO -1

 ;TEST 103 125252 0 SHIFTED BY -16, = -1 125252 PS = 10

007206	010701			SCOPE		
007210	012700	125252		MOV	#125252,X0	;LOAD R0 WITH 125252
007214	012701	000000		MOV	#0,X011	;LOAD R0!1 WITH 0
007220	000241			CLC		
007222	073027	177760		ASHC	#-16.,X0	;SHIFT R0,R0!1 BY -16,
007226	013767	177776	005514	MOV	@#PS,PSW	;SAVE PS
007234	122767	000010	005506	CMPB	#10,PSW	;IS THE PS 10?
007242	001401			BEQ	.,+4	
007244	000000			HLT		;THE PS IS NOT EQUAL TO 10
007246	022700	177777		CMP	#-1,X0	;IS THE RESULT -1?
007252	001401			BEQ	.,+4	
007254	000000			HLT		;R0 IS NOT EQUAL TO -1
007256	022701	125252		CMP	#125252,X011	;IS THE RESULT 125252?
007262	001401			BEQ	.,+4	
007264	000000			HLT		;R0!1 IS NOT EQUAL TO 125252

 ;TEST 104 52525 0 SHIFTED BY -16, = 0 52525 PS = 0

007266	010701			SCOPE		
007270	012700	052525		MOV	#52525,X0	;LOAD R0 WITH 52525
007274	012701	000000		MOV	#0,X011	;LOAD R0!1 WITH 0
007300	000241			CLC		
007302	073027	177760		ASHC	#-16.,X0	;SHIFT R0,R0!1 BY -16,
007306	013767	177776	005434	MOV	@#PS,PSW	;SAVE PS
007314	122767	000000	005426	CMPB	#0,PSW	;IS THE PS 0?
007322	001401			BEQ	.,+4	
007324	000000			HLT		;THE PS IS NOT EQUAL TO 0
007326	022700	000000		CMP	#0,X0	;IS THE RESULT 0?
007332	001401			BEQ	.,+4	
007334	000000			HLT		;R0 IS NOT EQUAL TO 0
007336	022701	052525		CMP	#52525,X011	;IS THE RESULT 52525?
007342	001401			BEQ	.,+4	
007344	000000			HLT		;R0!1 IS NOT EQUAL TO 52525

 ;TEST 105 100000 0 SHIFTED BY -32, = -1 -1 PS = 11

007346	010701			SCOPE		
007350	012700	100000		MOV	#100000,%0	;LOAD R0 WITH 100000
007354	012701	000000		MOV	#0,%0!1	;LOAD R0!1 WITH 0
007360	000241			CLC		
007362	073027	177740		ASHC	#-32,%0	;SHIFT R0,R0!1 BY -32.
007366	013767	177776	005354	MOV	@#PS,PSW	;SAVE PS
007374	122767	000011	005346	CMPB	#11,PSW	;IS THE PS 11?
007402	001401			BEQ	.*4	
007404	000000			HLT		;THE PS IS NOT EQUAL TO 11
007406	022700	177777		CMP	#-1,%0	;IS THE RESULT -1?
007412	001401			BEQ	.*4	
007414	000000			HLT		;R0 IS NOT EQUAL TO -1
007416	022701	177777		CMP	#-1,%0!1	;IS THE RESULT -1?
007422	001401			BEQ	.*4	
007424	000000			HLT		;R0!1 IS NOT EQUAL TO -1

 ;TEST 106 0 -1 SHIFTED BY 15, = 77777 100000 PS = 0

007426	010701			SCOPE		
007430	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
007434	012701	177777		MOV	#-1,%0!1	;LOAD R0!1 WITH -1
007440	000241			CLC		
007442	073027	000017		ASHC	#15,%0	;SHIFT R0,R0!1 BY 15.
007446	013767	177776	005274	MOV	@#PS,PSW	;SAVE PS
007454	122767	000000	005266	CMPB	#0,PSW	;IS THE PS 0?
007462	001401			BEQ	.*4	
007464	000000			HLT		;THE PS IS NOT EQUAL TO 0
007466	022700	077777		CMP	#77777,%0	;IS THE RESULT 77777?
007472	001401			BEQ	.*4	
007474	000000			HLT		;R0 IS NOT EQUAL TO 77777
007476	022701	100000		CMP	#100000,%0!1	;IS THE RESULT 100000?
007502	001401			BEQ	.*4	
007504	000000			HLT		;R0!1 IS NOT EQUAL TO 100000

 ITEST 107 0 -1 SHIFTED BY 16, = -1 0 PS = 12

007506	010701			SCOPE		
007510	012700	000000		MOV	#0,%0	ILOAD R0 WITH 0
007514	012701	177777		MOV	#-1,%011	ILOAD R0!1 WITH -1
007520	000241			CLC		
007522	073027	000020		ASHC	#16,%0	ISHIFT R0,R0!1 BY 16.
007526	013767	177776	005214	MOV	@#PS,PSW	ISAVE PS
007534	122767	000012	005206	CMPB	#12,PSW	IIS THE PS 12?
007542	001401			BEQ	.*4	
007544	000000			HLT		I THE PS IS NOT EQUAL TO 12
007546	022700	177777		CMP	#-1,%0	IIS THE RESULT -1?
007552	001401			BEQ	.*4	
007554	000000			HLT		IR0 IS NOT EQUAL TO -1
007556	022701	000000		CMP	#0,%011	IIS THE RESULT 0?
007562	001401			BEQ	.*4	
007564	000000			HLT		IR0!1 IS NOT EQUAL TO 0

 ITEST 110 100000 -2 SHIFTED BY 15, = 7777 0 PS = 2

007566	010701			SCOPE		
007570	012700	100000		MOV	#100000,%0	ILOAD R0 WITH 100000
007574	012701	177776		MOV	#-2,%011	ILOAD R0!1 WITH -2
007600	000241			CLC		
007602	073027	000017		ASHC	#15,%0	ISHIFT R0,R0!1 BY 15.
007606	013767	177776	005134	MOV	@#PS,PSW	ISAVE PS
007614	122767	000002	005126	CMPB	#2,PSW	IIS THE PS 2?
007622	001401			BEQ	.*4	
007624	000000			HLT		I THE PS IS NOT EQUAL TO 2
007626	022700	077777		CMP	#77777,%0	IIS THE RESULT 77777?
007632	001401			BEQ	.*4	
007634	000000			HLT		IR0 IS NOT EQUAL TO 77777
007636	022701	000000		CMP	#0,%011	IIS THE RESULT 0?
007642	001401			BEQ	.*4	
007644	000000			HLT		IR0!1 IS NOT EQUAL TO 0

 TEST 111 0 125252 SHIFTED BY 15, = 52525 0 PS = 0

007646	010701			SCOPE		
007650	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
007654	012701	125252		MOV	#125252,%011	;LOAD R0:1 WITH 125252
007660	000241			CLC		
007662	073027	000017		ASHC	#15,%0	;SHIFT R0,R0:1 BY 15.
007666	013767	177776	005054	MOV	@#PS,PSW	;SAVE PS
007674	122767	000000	005046	CMPB	#0,PSW	;IS THE PS 0?
007702	001401			BEQ	.*4	
007704	000000			HLT		;THE PS IS NOT EQUAL TO 0
007706	022700	052525		CMP	#52525,%0	;IS THE RESULT 52525?
007712	001401			BEQ	.*4	
007714	000000			HLT		;R0 IS NOT EQUAL TO 52525
007716	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
007722	001401			BEQ	.*4	
007724	000000			HLT		;R0:1 IS NOT EQUAL TO 0

 TEST 112 0 125252 SHIFTED BY 16, = 125252 0 PS = 12

007726	010701			SCOPE		
007730	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
007734	012701	125252		MOV	#125252,%011	;LOAD R0:1 WITH 125252
007740	000241			CLC		
007742	073027	000020		ASHC	#16,%0	;SHIFT R0,R0:1 BY 16.
007746	013767	177776	004774	MOV	@#PS,PSW	;SAVE PS
007754	122767	000012	004766	CMPB	#12,PSW	;IS THE PS 12?
007762	001401			BEQ	.*4	
007764	000000			HLT		;THE PS IS NOT EQUAL TO 12
007766	022700	125252		CMP	#125252,%0	;IS THE RESULT 125252?
007772	001401			BEQ	.*4	
007774	000000			HLT		;R0 IS NOT EQUAL TO 125252
007776	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
010002	001401			BEQ	.*4	
010004	000000			HLT		;R0:1 IS NOT EQUAL TO 0

 ;TEST 113 0 52525 SHIFTED BY 16, = 52525 0 PS = 0

010006	010701			SCOPE		
010010	012700	000000		MOV	#0,%0	;LOAD R0 WITH 0
010014	012701	052525		MOV	#52525,%011	;LOAD R0!1 WITH 52525
010020	000241			CLC		
010022	073027	000020		ASHC	#16,;%0	;SHIFT R0,R0!1 BY 16.
010026	013767	177776	004714	MOV	@#PS,PSW	;SAVE PS
010034	122767	000000	004706	CMPB	#0,PSW	;IS THE PS 0?
010042	001401			BEQ	,+4	
010044	000000			HLT		;THE PS IS NOT EQUAL TO 0
010046	022700	052525		CMP	#52525,%0	;IS THE RESULT 52525?
010052	001401			BEQ	,+4	
010054	000000			HLT		;R0 IS NOT EQUAL TO 52525
010056	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
010062	001401			BEQ	,+4	
010064	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 114 -1 0 SHIFTED BY 16, = 0 0 PS = 7

010066	010701			SCOPE		
010070	012700	177777		MOV	#-1,%0	;LOAD R0 WITH -1
010074	012701	000000		MOV	#0,%011	;LOAD R0!1 WITH 0
010100	000241			CLC		
010102	073027	000020		ASHC	#16,;%0	;SHIFT R0,R0!1 BY 16.
010106	013767	177776	004634	MOV	@#PS,PSW	;SAVE PS
010114	122767	000007	004626	CMPB	#7,PSW	;IS THE PS 7?
010122	001401			BEQ	,+4	
010124	000000			HLT		;THE PS IS NOT EQUAL TO 7
010126	022700	000000		CMP	#0,%0	;IS THE RESULT 0?
010132	001401			BEQ	,+4	
010134	000000			HLT		;R0 IS NOT EQUAL TO 0
010136	022701	000000		CMP	#0,%011	;IS THE RESULT 0?
010142	001401			BEQ	,+4	
010144	000000			HLT		;R0!1 IS NOT EQUAL TO 0

 ;TEST 115 1 SHIFTED BY 8, = 400 PS = 0

010146	010701			SCOPE		
010150	012701	000000		MOV	#DUMMY,%1	;LOAD R1 WITH DUMMY
010154	012701	000001		MOV	#1,%111	;LOAD R1:1 WITH 1
010160	000241			CLC		
010162	073127	000010		ASHC	#8,%1	;SHIFT R1,R1:1 BY 8.
010166	013767	177776	004554	MOV	@#PS,PSW	;SAVE PS
010174	122767	000000	004546	CMPB	#0,PSW	;IS THE PS 0?
010202	001401			BEQ	+.4	
010204	000000			HLT		;THE PS IS NOT EQUAL TO 0
010206	022701	000400		CMP	#400,%1	;IS THE RESULT 400?
010212	001401			BEQ	+.4	
010214	000000			HLT		;R1 IS NOT EQUAL TO 400

 ;TEST 116 -1 SHIFTED BY 15, = 100000 PS = 11

010216	010701			SCOPE		
010220	012701	000000		MOV	#DUMMY,%1	;LOAD R1 WITH DUMMY
010224	012701	177777		MOV	#-1,%111	;LOAD R1:1 WITH -1
010230	000241			CLC		
010232	073127	000017		ASHC	#15,%1	;SHIFT R1,R1:1 BY 15.
010236	013767	177776	004504	MOV	@#PS,PSW	;SAVE PS
010244	122767	000011	004476	CMPB	#11,PSW	;IS THE PS 11?
010252	001401			BEQ	+.4	
010254	000000			HLT		;THE PS IS NOT EQUAL TO 11
010256	022701	100000		CMP	#100000,%1	;IS THE RESULT 100000?
010262	001401			BEQ	+.4	
010264	000000			HLT		;R1 IS NOT EQUAL TO 100000

 ;TEST 117 52525 SHIFTED BY 0 = 52525 PS = 0

010266	010701			SCOPE		
010270	012701	000000		MOV	#DUMMY,X1	;LOAD R1 WITH DUMMY
010274	012701	052525		MOV	#52525,X111	;LOAD R1:1 WITH 52525
010300	000241			CLC		
010302	073127	000000		ASHC	#0,X1	;SHIFT R1,R1:1 BY 0
010306	013767	177776	004434	MOV	@#PS,PSW	;SAVE PS
010314	122767	000000	004426	CMPB	#0,PSW	;IS THE PS 0?
010322	001401			BEQ	,+4	
010324	000000			HLT		;THE PS IS NOT EQUAL TO 0
010326	022701	052525		CMP	#52525,X1	;IS THE RESULT 52525?
010332	001401			BEQ	,+4	
010334	000000			HLT		;R1 IS NOT EQUAL TO 52525

 ;TEST 120 20010 SHIFTED BY -13, = 101 PS = 0

010336	010701			SCOPE		
010340	012701	000000		MOV	#DUMMY,X1	;LOAD R1 WITH DUMMY
010344	012701	020010		MOV	#20010,X111	;LOAD R1:1 WITH 20010
010350	000241			CLC		
010352	073127	177763		ASHC	#-13,X1	;SHIFT R1,R1:1 BY -13,
010356	013767	177776	004364	MOV	@#PS,PSW	;SAVE PS
010364	122767	000000	004356	CMPB	#0,PSW	;IS THE PS 0?
010372	001401			BEQ	,+4	
010374	000000			HLT		;THE PS IS NOT EQUAL TO 0
010376	022701	000101		CMP	#101,X1	;IS THE RESULT 101?
010402	001401			BEQ	,+4	
010404	000000			HLT		;R1 IS NOT EQUAL TO 101

 ;TEST 121 -1 SHIFTED BY 16, = 0 PS = 11

010406	010701			SCOPE		
010410	012701	000000		MOV	#DUMMY,%1	;LOAD R1 WITH DUMMY
010414	012701	177777		MOV	#-1,%1!1	;LOAD R1!1 WITH -1
010420	000241			CLC		
010422	073127	000020		ASHC	#16,,%1	;SHIFT R1,R1!1 BY 16.
010426	013767	177776	004314	MOV	@#PS,PSW	;SAVE PS
010434	122767	000011	004306	CMPB	#11,PSW	;IS THE PS 11?
010442	001401			BEQ	.,+4	
010444	000000			HLT		;THE PS IS NOT EQUAL TO 11
010446	022701	000000		CMP	#0,%1	;IS THE RESULT 0?
010452	001401			BEQ	.,+4	
010454	000000			HLT		;R1 IS NOT EQUAL TO 0

 ;TEST 122 1 SHIFTED BY -1 = 100000 PS = 1

010456	010701			SCOPE		
010460	012701	000000		MOV	#DUMMY,%1	;LOAD R1 WITH DUMMY
010464	012701	000001		MOV	#1,%1!1	;LOAD R1!1 WITH 1
010470	000241			CLC		
010472	073127	177777		ASHC	#-1,%1	;SHIFT R1,R1!1 BY -1
010476	013767	177776	004244	MOV	@#PS,PSW	;SAVE PS
010504	122767	000001	004236	CMPB	#1,PSW	;IS THE PS 1?
010512	001401			BEQ	.,+4	
010514	000000			HLT		;THE PS IS NOT EQUAL TO 1
010516	022701	100000		CMP	#100000,%1	;IS THE RESULT 100000?
010522	001401			BEQ	.,+4	
010524	000000			HLT		;R1 IS NOT EQUAL TO 100000

 ;TEST 123 125252 SHIFTED BY -16, = 125252 PS = 11

010526	010701			SCOPE		
010530	012701	000000		MOV	#DUMMY,X1	;LOAD R1 WITH DUMMY
010534	012701	125252		MOV	#125252,X111	;LOAD R111 WITH 125252
010540	000241			CLC		
010542	073127	177760		ASHC	#-16.,X1	;SHIFT R1,R111 BY -16.
010546	013767	177776	004174	MOV	@#PS,PSW	;SAVE PS
010554	122767	000011	004166	CMPB	#11,PSW	;IS THE PS 11?
010562	001401			BEQ	.,+4	
010564	000000			HLT		;THE PS IS NOT EQUAL TO 11
010566	022701	125252		CMP	#125252,X1	;IS THE RESULT 125252?
010572	001401			BEQ	.,+4	
010574	000000			HLT		;R1 IS NOT EQUAL TO 125252

 ;TEST 124 -1 0 SHIFTED BY -16, = -1 -1 PS = 10

010576	010701			SCOPE		
010600	012702	177777		MOV	#-1,X2	;LOAD R2 WITH -1
010604	012703	000000		MOV	#0,X211	;LOAD R211 WITH 0
010610	000241			CLC		
010612	073227	177760		ASHC	#-16.,X2	;SHIFT R2,R211 BY -16.
010616	013767	177776	004124	MOV	@#PS,PSW	;SAVE PS
010624	122767	000010	004116	CMPB	#10,PSW	;IS THE PS 10?
010632	001401			BEQ	.,+4	
010634	000000			HLT		;THE PS IS NOT EQUAL TO 10
010636	022702	177777		CMP	#-1,X2	;IS THE RESULT -1?
010642	001401			BEQ	.,+4	
010644	000000			HLT		;R2 IS NOT EQUAL TO -1
010646	022703	177777		CMP	#-1,X211	;IS THE RESULT -1?
010652	001401			BEQ	.,+4	
010654	000000			HLT		;R211 IS NOT EQUAL TO -1

 ;TEST 125 125252 0 SHIFTED BY -16, = -1 125252 PS = 10

010656	010701			SCOPE	
010660	012702	125252		MOV	#125252,X2 ;LOAD R2 WITH 125252
010664	012703	000000		MOV	#0,X2I1 ;LOAD R2:I1 WITH 0
010670	000241			CLC	
010672	073227	177760		ASHC	#-16.,X2 ;SHIFT R2,R2:I1 BY -16.
010676	013767	177776	004044	MOV	@#PS,PSW ;SAVE PS
010704	122767	000010	004036	CMPB	#10,PSW ;IS THE PS 10?
010712	001401			BEQ	.,+4
010714	000000			HLT	;THE PS IS NOT EQUAL TO 10
010716	022702	177777		CMP	#-1,X2 ;IS THE RESULT -1?
010722	001401			BEQ	.,+4
010724	000000			HLT	;R2 IS NOT EQUAL TO -1
010726	022703	125252		CMP	#125252,X2I1 ;IS THE RESULT 125252?
010732	001401			BEQ	.,+4
010734	000000			HLT	;R2:I1 IS NOT EQUAL TO 125252

 ;TEST 126 52525 0 SHIFTED BY -16, = 0 52525 PS = 0

010736	010701			SCOPE	
010740	012702	052525		MOV	#52525,X2 ;LOAD R2 WITH 52525
010744	012703	000000		MOV	#0,X2I1 ;LOAD R2:I1 WITH 0
010750	000241			CLC	
010752	073227	177760		ASHC	#-16.,X2 ;SHIFT R2,R2:I1 BY -16.
010756	013767	177776	003764	MOV	@#PS,PSW ;SAVE PS
010764	122767	000000	003756	CMPB	#0,PSW ;IS THE PS 0?
010772	001401			BEQ	.,+4
010774	000000			HLT	;THE PS IS NOT EQUAL TO 0
010776	022702	000000		CMP	#0,X2 ;IS THE RESULT 0?
011002	001401			BEQ	.,+4
011004	000000			HLT	;R2 IS NOT EQUAL TO 0
011006	022703	052525		CMP	#52525,X2I1 ;IS THE RESULT 52525?
011012	001401			BEQ	.,+4
011014	000000			HLT	;R2:I1 IS NOT EQUAL TO 52525

;TEST 127 100000 0 SHIFTED BY -32, = -1 -1 PS = 11

011016	010701			SCOPE		
011020	012702	100000		MOV	#100000,%2	;LOAD R2 WITH 100000
011024	012703	000000		MOV	#0,%2!1	;LOAD R2!1 WITH 0
011030	000241			CLC		
011032	073227	177740		ASHC	#-32,%2	;SHIFT R2,R2!1 BY -32,
011036	013767	177776	003704	MOV	@#PS,PSW	;SAVE PS
011044	122767	000011	003676	CMPB	#11,PSW	;IS THE PS 11?
011052	001401			BEQ	,+4	
011054	000000			HLT		;THE PS IS NOT EQUAL TO 11
011056	022702	177777		CMP	#-1,%2	;IS THE RESULT -1?
011062	001401			BEQ	,+4	
011064	000000			HLT		;R2 IS NOT EQUAL TO -1
011066	022703	177777		CMP	#-1,%2!1	;IS THE RESULT -1?
011072	001401			BEQ	,+4	
011074	000000			HLT		;R2!1 IS NOT EQUAL TO -1

;TEST 130 0 -1 SHIFTED BY 15, = 77777 100000 PS = 0

011076	010701			SCOPE		
011100	012702	000000		MOV	#0,%2	;LOAD R2 WITH 0
011104	012703	177777		MOV	#-1,%2!1	;LOAD R2!1 WITH -1
011110	000241			CLC		
011112	073227	000017		ASHC	#15,%2	;SHIFT R2,R2!1 BY 15,
011116	013767	177776	003624	MOV	@#PS,PSW	;SAVE PS
011124	122767	000000	003616	CMPB	#0,PSW	;IS THE PS 0?
011132	001401			BEQ	,+4	
011134	000000			HLT		;THE PS IS NOT EQUAL TO 0
011136	022702	077777		CMP	#77777,%2	;IS THE RESULT 77777?
011142	001401			BEQ	,+4	
011144	000000			HLT		;R2 IS NOT EQUAL TO 77777
011146	022703	100000		CMP	#100000,%2!1	;IS THE RESULT 100000?
011152	001401			BEQ	,+4	
011154	000000			HLT		;R2!1 IS NOT EQUAL TO 100000

 ITEST 131 0 -1 SHIFTED BY 16, = -1 0 PS = 12

011156	010701			SCOPE		
011160	012702	000000		MOV	#0,X2	ILOAD R2 WITH 0
011164	012703	177777		MOV	#-1,X2I1	ILOAD R2I1 WITH -1
011170	000241			CLC		
011172	073227	000020		ASHC	#16,,X2	ISHIFT R2,R2I1 BY 16.
011176	013767	177776	003544	MOV	@#PS,PSW	ISAVE PS
011204	122767	000012	003536	CMPB	#12;PSW	IIS THE PS 12?
011212	001401			BEQ	,+4	
011214	000000			HLT		I THE PS IS NOT EQUAL TO 12.
011216	022702	177777		CMP	#-1,X2	IIS THE RESULT -1?
011222	001401			BEQ	,+4	
011224	000000			HLT		IR2 IS NOT EQUAL TO -1
011226	022703	000000		CMP	#0,X2I1	IIS THE RESULT 0?
011232	001401			BEQ	,+4	
011234	000000			HLT		IR2I1 IS NOT EQUAL TO 0

 ITEST 132 100000 -2 SHIFTED BY 15, = 77777 0 PS = 2

011236	010701			SCOPE		
011240	012702	100000		MOV	#100000,X2	ILOAD R2 WITH 100000
011244	012703	177776		MOV	#-2,X2I1	ILOAD R2I1 WITH -2
011250	000241			CLC		
011252	073227	000017		ASHC	#15,,X2	ISHIFT R2,R2I1 BY 15.
011256	013767	177776	003464	MOV	@#PS,PSW	ISAVE PS
011264	122767	000032	003456	CMPB	#2,PSW	IIS THE PS 2?
011272	001401			BEQ	,+4	
011274	000000			HLT		I THE PS IS NOT EQUAL TO 2
011276	022702	077777		CMP	#77777,X2	IIS THE RESULT 77777?
011302	001401			BEQ	,+4	
011304	000000			HLT		IR2 IS NOT EQUAL TO 77777
011306	022703	000000		CMP	#0,X2I1	IIS THE RESULT 0?
011312	001401			BEQ	,+4	
011314	000000			HLT		IR2I1 IS NOT EQUAL TO 0

;TEST 133 0 125252 SHIFTED BY 15, = 52525 0 PS = 0

011316	010701			SCOPE		
011320	012702	000000		MOV	#0,X2	;LOAD R2 WITH 0
011324	012703	125252		MOV	#125252,X2I1	;LOAD R2I1 WITH 125252
011330	000241			CLC		
011332	073227	000017		ASHC	#15,,X2	;SHIFT R2,R2I1 BY 15,
011336	013767	177776	003404	MOV	@#PS,PSW	;SAVE PS
011344	122767	000000	003376	CMPB	#0,PSW	;IS THE PS 0?
011352	001401			BEQ	,+4	
011354	000000			HLT		;THE PS IS NOT EQUAL TO 0
011356	022702	052525		CMP	#52525,X2	;IS THE RESULT 52525?
011362	001401			BEQ	,+4	
011364	000000			HLT		;R2 IS NOT EQUAL TO 52525
011366	022703	000000		CMP	#0,X2I1	;IS THE RESULT 0?
011372	001401			BEQ	,+4	
011374	000000			HLT		;R2I1 IS NOT EQUAL TO 0

;TEST 134 0 125252 SHIFTED BY 16, = 125252 0 PS = 12

011376	010701			SCOPE		
011400	012702	000000		MOV	#0,X2	;LOAD R2 WITH 0
011404	012703	125252		MOV	#125252,X2I1	;LOAD R2I1 WITH 125252
011410	000241			CLC		
011412	073227	000020		ASHC	#16,,X2	;SHIFT R2,R2I1 BY 16,
011416	013767	177776	003324	MOV	@#PS,PSW	;SAVE PS
011424	122767	000012	003316	CMPB	#12,PSW	;IS THE PS 12?
011432	001401			BEQ	,+4	
011434	000000			HLT		;THE PS IS NOT EQUAL TO 12
011436	022702	125252		CMP	#125252,X2	;IS THE RESULT 125252?
011442	001401			BEQ	,+4	
011444	000000			HLT		;R2 IS NOT EQUAL TO 125252
011446	022703	000000		CMP	#0,X2I1	;IS THE RESULT 0?
011452	001401			BEQ	,+4	
011454	000000			HLT		;R2I1 IS NOT EQUAL TO 0

 ;TEST 135 0 52525 SHIFTED BY 16, * 52525 0 PS = 0

011456	010701			SCOPE	
011460	012702	000000		MOV	#0,X2 ;LOAD R2 WITH 0
011464	012703	052525		MOV	#52525,X2 ;LOAD R2:1 WITH 52525
011470	000241			CLC	
011472	073227	000020		ASHC	#16,X2 ;SHIFT R2,R2:1 BY 16.
011476	013767	177776	003244	MOV	@#PS,PSW ;SAVE PS
011504	122767	000000	003236	CMPB	#0,PSW ;IS THE PS 0?
011512	001401			BEQ	,+4
011514	000000			HLT	;THE PS IS NOT EQUAL TO 0
011516	022702	052525		CMP	#52525,X2 ;IS THE RESULT 52525?
011522	001401			BEQ	,+4
011524	000000			HLT	;R2 IS NOT EQUAL TO 52525
011526	022703	000000		CMP	#0,X2:1 ;IS THE RESULT 0?
011532	001401			BEQ	,+4
011534	000000			HLT	;R2:1 IS NOT EQUAL TO 0

 ;TEST 136 -1 0 SHIFTED BY 16, * 0 0 PS = 7

011536	010701			SCOPE	
011540	012702	177777		MOV	#-1,X2 ;LOAD R2 WITH -1
011544	012703	000000		MOV	#0,X2:1 ;LOAD R2:1 WITH 0
011550	000241			CLC	
011552	073227	000020		ASHC	#16,X2 ;SHIFT R2,R2:1 BY 16.
011556	013767	177776	003164	MOV	@#PS,PSW ;SAVE PS
011564	122767	000007	003156	CMPB	#7,PSW ;IS THE PS 7?
011572	001401			BEQ	,+4
011574	000000			HLT	;THE PS IS NOT EQUAL TO 7
011576	022702	000000		CMP	#0,X2 ;IS THE RESULT 0?
011602	001401			BEQ	,+4
011604	000000			HLT	;R2 IS NOT EQUAL TO 0
011606	022703	000000		CMP	#0,X2:1 ;IS THE RESULT 0?
011612	001401			BEQ	,+4
011614	000000			HLT	;R2:1 IS NOT EQUAL TO 0

TEST 137 1 SHIFTED BY 8, = 400 PS = 0

011616	010701			SCOPE		
011620	012703	000000		MOV	#DUMMY,X3	;LOAD R3 WITH DUMMY
011624	012703	000001		MOV	#1,X3:1	;LOAD R3:1 WITH 1
011630	000241			CLC		
011632	073327	000010		ASHC	#8,X3	;SHIFT R3,R3:1 BY 8,
011636	013767	177776	003104	MOV	@#PS,PSW	;SAVE PS
011644	122767	000000	003076	CMPB	#0,PSW	;IS THE PS 0?
011652	001401			BEQ	,+4	
011654	000000			HLT		;THE PS IS NOT EQUAL TO 0
011656	022703	000400		CMP	#400,X3	;IS THE RESULT 400?
011662	001401			BEQ	,+4	
011664	000000			HLT		;R3 IS NOT EQUAL TO 400

TEST 140 -1 SHIFTED BY 15, = 100000 PS = 11

011666	010701			SCOPE		
011670	012703	000000		MOV	#DUMMY,X3	;LOAD R3 WITH DUMMY
011674	012703	177777		MOV	#-1,X3:1	;LOAD R3:1 WITH -1
011700	000241			CLC		
011702	073327	000017		ASHC	#15,X3	;SHIFT R3,R3:1 BY 15,
011706	013767	177776	003034	MOV	@#PS,PSW	;SAVE PS
011714	122767	000011	003026	CMPB	#11,PSW	;IS THE PS 11?
011722	001401			BEQ	,+4	
011724	000000			HLT		;THE PS IS NOT EQUAL TO 11
011726	022703	100000		CMP	#100000,X3	;IS THE RESULT 100000?
011732	001401			BEQ	,+4	
011734	000000			HLT		;R3 IS NOT EQUAL TO 100000

 ;TEST 141 52525 SHIFTED BY 0 = 52525 PS = 0

011736	010701			SCOPE		
011740	012703	000000		MOV	#DUMMY,%3	;LOAD R3 WITH DUMMY
011744	012703	052525		MOV	#52525,%3|1	;LOAD R3|1 WITH 52525
011750	000241			CLC		
011752	073327	000000		ASHC	#0,%3	;SHIFT R3,R3|1 BY 0
011756	013767	177776	002764	MOV	@#PS,PSW	;SAVE PS
011764	122767	000000	002756	CMPB	#0,PSW	;IS THE PS 0?
011772	001401			BEQ	,+4	
011774	000000			HLT		;THE PS IS NOT EQUAL TO 0
011776	022703	052525		CMP	#52525,%3	;IS THE RESULT 52525?
012002	001401			BEQ	,+4	
012004	000000			HLT		;R3 IS NOT EQUAL TO 52525

 ;TEST 142 20010 SHIFTED BY -13, = 101 PS = 0

012006	010701			SCOPE		
012010	012703	000000		MOV	#DUMMY,%3	;LOAD R3 WITH DUMMY
012014	012703	020010		MOV	#20010,%3|1	;LOAD R3|1 WITH 20010
012020	000241			CLC		
012022	073327	177763		ASHC	#-13,%3	;SHIFT R3,R3|1 BY -13,
012026	013767	177776	002714	MOV	@#PS,PSW	;SAVE PS
012034	122767	000000	002706	CMPB	#0,PSW	;IS THE PS 0?
012042	001401			BEQ	,+4	
012044	000000			HLT		;THE PS IS NOT EQUAL TO 0
012046	022703	000101		CMP	#101,%3	;IS THE RESULT 101?
012052	001401			BEQ	,+4	
012054	000000			HLT		;R3 IS NOT EQUAL TO 101

 ;TEST 143 -1 SHIFTED BY 16' = 0 PS = 11

012056	010701			SCOPE		
012060	012703	000000		MOV	#DUMMY,%3	;LOAD R3 WITH DUMMY
012064	012703	177777		MOV	#-1,%311	;LOAD R3!1 WITH -1
012070	000241			CLC		
012072	073327	000020		ASHC	#16,%3	;SHIFT R3,R3!1 BY 16.
012076	013767	177776	002644	MOV	@#PS,PSW	;SAVE PS
012104	122767	000011	002636	CMPB	#11,PSW	;IS THE PS 11?
012112	001401			BEQ	.,+4	
012114	000000			HLT		;THE PS IS NOT EQUAL TO 11
012116	022703	000000		CMP	#0,%3	;IS THE RESULT 0?
012122	001401			BEQ	.,+4	
012124	000000			HLT		;R3 IS NOT EQUAL TO 0

 ;TEST 144 1 SHIFTED BY -1 = 100000 PS = 1

012126	010701			SCOPE		
012130	012703	000000		MOV	#DUMMY,%3	;LOAD R3 WITH DUMMY
012134	012703	000001		MOV	#1,%311	;LOAD R3!1 WITH 1
012140	000241			CLC		
012142	073327	177777		ASHC	#-1,%3	;SHIFT R3,R3!1 BY -1
012146	013767	177776	002574	MOV	@#PS,PSW	;SAVE PS
012154	122767	000001	002566	CMPB	#1,PSW	;IS THE PS 1?
012162	001401			BEQ	.,+4	
012164	000000			HLT		;THE PS IS NOT EQUAL TO 1
012166	022703	100000		CMP	#100000,%3	;IS THE RESULT 100000?
012172	001401			BEQ	.,+4	
012174	000000			HLT		;R3 IS NOT EQUAL TO 100000

 ;TEST 145 125252 SHIFTED BY -16, = 125252 PS = 11

012176	010701			SCOPE		
012200	012703	000000		MOV	#DUMMY,%3	;LOAD R3 WITH DUMMY
012204	012703	125252		MOV	#125252,%3!1	;LOAD R3!1 WITH 125252
012210	000241			CLC		
012212	073327	177760		ASHC	#-16,%3	;SHIFT R3,R3!1 BY -16,
012216	013767	177776	002524	MOV	@#PS,PSW	;SAVE PS
012224	122767	000011	002516	CMPB	#11,PSW	;IS THE PS 11?
012232	001401			BEQ	,+4	
012234	000000			HLT		;THE PS IS NOT EQUAL TO 11
012236	022703	125252		CMP	#125252,%3	;IS THE RESULT 125252?
012242	001401			BEQ	,+4	
012244	000000			HLT		;R3 IS NOT EQUAL TO 125252

 ;TEST 146 -1 0 SHIFTED BY -16, = -1 -1 PS = 10

012246	010701			SCOPE		
012250	012704	177777		MOV	#-1,%4	;LOAD R4 WITH -1
012254	012705	000000		MOV	#0,%4!1	;LOAD R4!1 WITH 0
012260	000241			CLC		
012262	073427	177760		ASHC	#-16,%4	;SHIFT R4,R4!1 BY -16,
012266	013767	177776	002454	MOV	@#PS,PSW	;SAVE PS
012274	122767	000010	002446	CMPB	#10,PSW	;IS THE PS 10?
012302	001401			BEQ	,+4	
012304	000000			HLT		;THE PS IS NOT EQUAL TO 10
012306	022704	177777		CMP	#-1,%4	;IS THE RESULT -1?
012312	001401			BEQ	,+4	
012314	000000			HLT		;R4 IS NOT EQUAL TO -1
012316	022705	177777		CMP	#-1,%4!1	;IS THE RESULT -1?
012322	001401			BEQ	,+4	
012324	000000			HLT		;R4!1 IS NOT EQUAL TO -1

 ;TEST 147 125252 0 SHIFTED BY -16, = -1 125252 PS = 10

012326	010701			SCOPE	
012330	012704	125252		MOV #125252,X4	;LOAD R4 WITH 125252
012334	012705	000000		MOV #0,X4!1	;LOAD R4!1 WITH 0
012340	000241			CLC	
012342	073427	177760		ASHC #-16.,X4	;SHIFT R4,R4!1 BY -16,
012346	013767	177776	002374	MOV @#PS,PSW	;SAVE PS
012354	122767	000010	002366	CMPB #10;PSW	;IS THE PS 10?
012362	001401			BEQ .+4	
012364	000000			HLT	;THE PS IS NOT EQUAL TO 10
012366	022704	177777		CMP #-1,X4	;IS THE RESULT -1?
012372	001401			BEQ .+4	
012374	000000			HLT	;R4 IS NOT EQUAL TO -1
012376	022705	125232		CMP #125252,X4!1	;IS THE RESULT 125252?
012402	001401			BEQ .+4	
012404	000000			HLT	;R4!1 IS NOT EQUAL TO 125252

 ;TEST 150 52525 0 SHIFTED BY -16, = 0 52525 PS = 0

012406	010701			SCOPE	
012410	012704	052525		MOV #52525,X4	;LOAD R4 WITH 52525
012414	012705	000000		MOV #0,X4!1	;LOAD R4!1 WITH 0
012420	000241			CLC	
012422	073427	177760		ASHC #-16.,X4	;SHIFT R4,R4!1 BY -16,
012426	013767	177776	002314	MOV @#PS,PSW	;SAVE PS
012434	122767	000000	002306	CMPB #0;PSW	;IS THE PS 0?
012442	001401			BEQ .+4	
012444	000000			HLT	;THE PS IS NOT EQUAL TO 0
012446	022704	000000		CMP #0,X4	;IS THE RESULT 0?
012452	001401			BEQ .+4	
012454	000000			HLT	;R4 IS NOT EQUAL TO 0
012456	022705	052525		CMP #52525,X4!1	;IS THE RESULT 52525?
012462	001401			BEQ .+4	
012464	000000			HLT	;R4!1 IS NOT EQUAL TO 52525

 ;TEST 151 100000 0 SHIFTED BY -32, = -1 -1 PS = 11

012466	010701			SCOPE		
012470	012704	100000		MOV	#100000,%4	;LOAD R4 WITH 100000
012474	012705	000000		MOV	#0,%411	;LOAD R4!1 WITH 0
012500	000241			CLC		
012502	073427	177740		ASHC	#-32,%4	;SHIFT R4,R4!1 BY -32,
012506	013767	177776	002234	MOV	@#PS,PSW	;SAVE PS
012514	122767	000011	002226	CMPB	#11,PSW	;IS THE PS 11?
012522	001401			BEQ	,+4	
012524	000000			HLT		;THE PS IS NOT EQUAL TO 11
012526	022704	177777		CMP	#-1,%4	;IS THE RESULT -1?
012532	001401			BEQ	,+4	
012534	000000			HLT		;R4 IS NOT EQUAL TO -1
012536	022705	177777		CMP	#-1,%411	;IS THE RESULT -1?
012542	001401			BEQ	,+4	
012544	000000			HLT		;R4!1 IS NOT EQUAL TO -1

 ;TEST 152 0 -1 SHIFTED BY 15, = 77777 100000 PS = 0

012546	010701			SCOPE		
012550	012704	000000		MOV	#0,%4	;LOAD R4 WITH 0
012554	012705	177777		MOV	#-1,%411	;LOAD R4!1 WITH -1
012560	000241			CLC		
012562	073427	000017		ASHC	#15,%4	;SHIFT R4,R4!1 BY 15,
012566	013767	177776	002154	MOV	@#PS,PSW	;SAVE PS
012574	122767	000000	002146	CMPB	#0,PSW	;IS THE PS 0?
012602	001401			BEQ	,+4	
012604	000000			HLT		;THE PS IS NOT EQUAL TO 0
012606	022704	077777		CMP	#77777,%4	;IS THE RESULT 77777?
012612	001401			BEQ	,+4	
012614	000000			HLT		;R4 IS NOT EQUAL TO 77777
012616	022705	100000		CMP	#100000,%411	;IS THE RESULT 100000?
012622	001401			BEQ	,+4	
012624	000000			HLT		;R4!1 IS NOT EQUAL TO 100000

;TEST 153 0 -1 SHIFTED BY 16, = -1 0 PS = 12

012626	010701			SCOPE		
012630	012704	000000		MOV	#0,%4	;LOAD R4 WITH 0
012634	012705	177777		MOV	#-1,%4:1	;LOAD R4:1 WITH -1
012640	000241			CLC		
012642	073427	000020		ASHC	#16,%4	;SHIFT R4,R4:1 BY 16.
012646	013767	177776	002074	MOV	@#PS,PSW	;SAVE PS
012654	122767	000012	002066	CMPB	#12,PSW	;IS THE PS 12?
012662	001401			BEQ	,+4	
012664	000000			HLT		;THE PS IS NOT EQUAL TO 12
012666	022704	177777		CMP	#-1,%4	;IS THE RESULT -1?
012672	001401			BEQ	,+4	
012674	000000			HLT		;R4 IS NOT EQUAL TO -1
012676	022705	000000		CMP	#0,%4:1	;IS THE RESULT 0?
012702	001401			BEQ	,+4	
012704	000000			HLT		;R4:1 IS NOT EQUAL TO 0

;TEST 154 100000 -2 SHIFTED BY 15, = 77777 0 PS = 2

012706	010701			SCOPE		
012710	012704	100000		MOV	#100000,%4	;LOAD R4 WITH 100000
012714	012705	177776		MOV	#-2,%4:1	;LOAD R4:1 WITH -2
012720	000241			CLC		
012722	073427	000017		ASHC	#15,%4	;SHIFT R4,R4:1 BY 15.
012726	013767	177776	002014	MOV	@#PS,PSW	;SAVE PS
012734	122767	000002	002006	CMPB	#2,PSW	;IS THE PS 2?
012742	001401			BEQ	,+4	
012744	000000			HLT		;THE PS IS NOT EQUAL TO 2
012746	022704	077777		CMP	#77777,%4	;IS THE RESULT 77777?
012752	001401			BEQ	,+4	
012754	000000			HLT		;R4 IS NOT EQUAL TO 77777
012756	022705	000000		CMP	#0,%4:1	;IS THE RESULT 0?
012762	001401			BEQ	,+4	
012764	000000			HLT		;R4:1 IS NOT EQUAL TO 0

 ;TEST 155 0 125252 SHIFTED BY 15, = 52525 0 PS = 0

012766	010701			SCOPE	
012770	012704	000000		MOV	#0,X4 ;LOAD R4 WITH 0
012774	012705	125252		MOV	#125252,X4!1 ;LOAD R4!1 WITH 125252
013000	000241			CLC	
013002	073427	000017		ASHC	#15,,X4 ;SHIFT R4,R4!1 BY 15,
013006	013767	177776	001734	MOV	@#PS,PSW ;SAVE PS
013014	122767	000000	001726	CMPB	#0,PSW ;IS THE PS 0?
013022	001401			BEQ	,+4
013024	000000			HLT	;THE PS IS NOT EQUAL TO 0
013026	022704	052525		CMP	#52525,X4 ;IS THE RESULT 52525?
013032	001401			BEQ	,+4
013034	000000			HLT	;R4 IS NOT EQUAL TO 52525
013036	022705	000000		CMP	#0,X4!1 ;IS THE RESULT 0?
013042	001401			BEQ	,+4
013044	000000			HLT	;R4!1 IS NOT EQUAL TO 0

 ;TEST 156 0 125252 SHIFTED BY 16, = 125252 0 PS = 12

013046	010701			SCOPE	
013050	012704	000000		MOV	#0,X4 ;LOAD R4 WITH 0
013054	012705	125252		MOV	#125252,X4!1 ;LOAD R4!1 WITH 125252
013060	000241			CLC	
013062	073427	000020		ASHC	#16,,X4 ;SHIFT R4,R4!1 BY 16,
013066	013767	177776	001654	MOV	@#PS,PSW ;SAVE PS
013074	122767	000012	001646	CMPB	#12,PSW ;IS THE PS 12?
013102	001401			BEQ	,+4
013104	000000			HLT	;THE PS IS NOT EQUAL TO 12
013106	022704	125252		CMP	#125252,X4 ;IS THE RESULT 125252?
013112	001401			BEQ	,+4
013114	000000			HLT	;R4 IS NOT EQUAL TO 125252
013116	022705	000000		CMP	#0,X4!1 ;IS THE RESULT 0?
013122	001401			BEQ	,+4
013124	000000			HLT	;R4!1 IS NOT EQUAL TO 0

;TEST 157 0 52525 SHIFTED BY 16, = 52525 0 PS = 0

013126	010701			SCOPE		
013130	012704	000000		MOV	#0,X4	;LOAD R4 WITH 0
013134	012705	052525		MOV	#52525,X411	;LOAD R4!1 WITH 52525
013140	000241			CLC		
013142	073427	000020		ASHC	#16,X4	;SHIFT R4,R4!1 BY 16.
013146	013767	177776	001574	MOV	@#PS,PSW	;SAVE PS
013154	122767	000000	001566	CMPB	#0,PSW	;IS THE PS 0?
013162	001401			BEQ	,+4	
013164	000000			HLT		;THE PS IS NOT EQUAL TO 0
013166	022704	052525		CMP	#52525,X4	;IS THE RESULT 52525?
013172	001401			BEQ	,+4	
013174	000000			HLT		;R4 IS NOT EQUAL TO 52525
013176	022705	000000		CMP	#0,X4!1	;IS THE RESULT 0?
013202	001401			BEQ	,+4	
013204	000000			HLT		;R4!1 IS NOT EQUAL TO 0

;TEST 160 -1 0 SHIFTED BY 16, = 0 0 PS = 7

013206	010701			SCOPE		
013210	012704	177777		MOV	#-1,X4	;LOAD R4 WITH -1
013214	012705	000000		MOV	#0,X4!1	;LOAD R4!1 WITH 0
013220	000241			CLC		
013222	073427	000020		ASHC	#16,X4	;SHIFT R4,R4!1 BY 16.
013226	013767	177776	001514	MOV	@#PS,PSW	;SAVE PS
013234	122767	000007	001506	CMPB	#7,PSW	;IS THE PS 7?
013242	001401			BEQ	,+4	
013244	000000			HLT		;THE PS IS NOT EQUAL TO 7
013246	022704	000000		CMP	#0,X4	;IS THE RESULT 0?
013252	001401			BEQ	,+4	
013254	000000			HLT		;R4 IS NOT EQUAL TO 0
013256	022705	000000		CMP	#0,X4!1	;IS THE RESULT 0?
013262	001401			BEQ	,+4	
013264	000000			HLT		;R4!1 IS NOT EQUAL TO 0

 ;TEST 161 1 SHIFTED BY 8, = 400 PS = 0

013266	012701			SCOPE		
013270	012705	000000		MOV	#DUMMY,%5	;LOAD R5 WITH DUMMY
013274	012705	000001		MOV	#1,%5;1	;LOAD R5;1 WITH 1
013300	000241			CLC		
013302	073527	000010		ASHC	#8,,%5	;SHIFT R5,R5;1 BY 8,
013306	013767	177776	001434	MOV	@#PS,PSW	;SAVE PS
013314	122767	000000	001426	CMPB	#0,PSW	;IS THE PS 0?
013322	001401			BEQ	,+4	
013324	000000			HLT		;THE PS IS NOT EQUAL TO 0
013326	022705	000400		CMP	#400,%5	;IS THE RESULT 400?
013332	001401			BEQ	,+4	
013334	000000			HLT		;R5 IS NOT EQUAL TO 400

 ;TEST 162 -1 SHIFTED BY 15, = 100000 PS = 11

013336	012701			SCOPE		
013340	012705	000000		MOV	#DUMMY,%5	;LOAD R5 WITH DUMMY
013344	012705	177777		MOV	#-1,%5;1	;LOAD R5;1 WITH -1
013350	000241			CLC		
013352	073527	000017		ASHC	#15,,%5	;SHIFT R5,R5;1 BY 15,
013356	013767	177776	001364	MOV	@#PS,PSW	;SAVE PS
013364	122767	000011	001356	CMPB	#11,PSW	;IS THE PS 11?
013372	001401			BEQ	,+4	
013374	000000			HLT		;THE PS IS NOT EQUAL TO 11
013376	022705	100000		CMP	#100000,%5	;IS THE RESULT 100000?
013402	001401			BEQ	,+4	
013404	000000			HLT		;R5 IS NOT EQUAL TO 100000

 ;TEST 163 52525 SHIFTED BY 0 = 52525 PS = 0

013406	010701			SCOPE		
013410	012705	000000		MOV	#DUMMY,X5	;LOAD R5 WITH DUMMY
013414	012705	052525		MOV	#52525,X5:1	;LOAD R5:1 WITH 52525
013420	000241			CLC		
013422	073527	000000		ASHC	#0,X5	;SHIFT R5,R5:1 BY 0
013426	013767	177776	001314	MOV	@#PS,PSW	;SAVE PS
013434	122767	000000	001306	CMPB	#0,PSW	;IS THE PS 0?
013442	001401			BEQ	,+4	
013444	000000			HLT		;THE PS IS NOT EQUAL TO 0
013446	022705	052525		CMP	#52525,X5	;IS THE RESULT 52525?
013452	001401			BEQ	,+4	
013454	000000			HLT		;R5 IS NOT EQUAL TO 52525

 ;TEST 164 20010 SHIFTED BY -13, = 101 PS = 0

013456	010701			SCOPE		
013460	012705	000000		MOV	#DUMMY,X5	;LOAD R5 WITH DUMMY
013464	012705	020010		MOV	#20010,X5:1	;LOAD R5:1 WITH 20010
013470	000241			CLC		
013472	073527	177763		ASHC	#-13,X5	;SHIFT R5,R5:1 BY -13.
013476	013767	177776	001244	MOV	@#PS,PSW	;SAVE PS
013504	122767	000000	001236	CMPB	#0,PSW	;IS THE PS 0?
013512	001401			BEQ	,+4	
013514	000000			HLT		;THE PS IS NOT EQUAL TO 0
013516	022705	000101		CMP	#101,X5	;IS THE RESULT 101?
013522	001401			BEQ	,+4	
013524	000000			HLT		;R5 IS NOT EQUAL TO 101

 ;TEST 165 -1 SHIFTED BY 16, = 0 PS = 11

013526	010701			SCOPE		
013530	012705	000000		MOV	#DUMMY,X5	;LOAD R5 WITH DUMMY
013534	012705	177777		MOV	#-1,X5I1	;LOAD R5:I1 WITH -1
013540	000241			CLC		
013542	073527	000020		ASHC	#16,,X5	;SHIFT R5,R5:I1 BY 16.
013546	013767	177776	001174	MOV	@#PS,PSW	;SAVE PS
013554	122767	000011	001166	CMPB	#11,PSW	;IS THE PS 11?
013562	001401			BEQ	+.4	
013564	000000			HLT		;THE PS IS NOT EQUAL TO 11
013566	022705	000000		CMP	#0,X5	;IS THE RESULT 0?
013572	001401			BEQ	+.4	
013574	000000			HLT		;R5 IS NOT EQUAL TO 0

 ;TEST 166 1 SHIFTED BY -1 = 100000 PS = 1

013576	010701			SCOPE		
013600	012705	000000		MOV	#DUMMY,X5	;LOAD R5 WITH DUMMY
013604	012705	000001		MOV	#1,X5I1	;LOAD R5:I1 WITH 1
013610	000241			CLC		
013612	073527	177777		ASHC	#-1,X5	;SHIFT R5,R5:I1 BY -1
013616	013767	177776	001124	MOV	@#PS,PSW	;SAVE PS
013624	122767	000001	001116	CMPB	#1,PSW	;IS THE PS 1?
013632	001401			BEQ	+.4	
013634	000000			HLT		;THE PS IS NOT EQUAL TO 1
013636	022705	100000		CMP	#100000,X5	;IS THE RESULT 100000?
013642	001401			BEQ	+.4	
013644	000000			HLT		;R5 IS NOT EQUAL TO 100000

)TEST 167 125252 SHIFTED BY -16, = 125252 PS = 11

013646	010701			SCOPE		
013650	012705	000000		MOV	#DUMMY,%5	)LOAD R5 WITH DUMMY
013654	012705	125252		MOV	#125252,%5!1	)LOAD R5!1 WITH 125252
013660	000241			CLC		
013662	073527	177760		ASHC	#-16,%5	)SHIFT R5,R5!1 BY -16.
013666	013767	177776	001054	MOV	@#PS,PSW	)SAVE PS
013674	122767	000011	001046	CMPB	#11,PSW	)IS THE PS 11?
013702	001401			BEQ	,+4	
013704	000000			HLT		)THE PS IS NOT EQUAL TO 11
013706	022705	125252		CMP	#125252,%5	)IS THE RESULT 125252?
013712	001401			BEQ	,+4	
013714	000000			HLT		)R5 IS NOT EQUAL TO 125252

013716	012702	177771		MOV	#-7,%2
013722	012703	014754		MOV	#S1,%3
013726	012704	014756		MOV	#S2,%4

)TEST 170 125252 125252 SHIFTED BY S1 = 177525 52525 PS = 10

013732	010701			SCOPE		
013734	012700	125252		MOV	#125252,%0	)LOAD R0 WITH 125252
013740	012701	125252		MOV	#125252,%0!1	)LOAD R0!1 WITH 125252
013744	000241			CLC		
013746	073067	001002		ASHC	S1,%0	)SHIFT R0,R0!1 BY S1
013752	013767	177776	000770	MOV	@#PS,PSW	)SAVE PS
013760	122767	000010	000762	CMPB	#10,PSW	)IS THE PS 10?
013766	001401			BEQ	,+4	
013770	000000			HLT		)THE PS IS NOT EQUAL TO 10
013772	022700	177525		CMP	#177525,%0	)IS THE RESULT 177525?
013776	001401			BEQ	,+4	
014000	000000			HLT		)R0 IS NOT EQUAL TO 177525
014002	022701	052525		CMP	#52525,%0!1	)IS THE RESULT 52525?
014006	001401			BEQ	,+4	
014010	000000			HLT		)R0!1 IS NOT EQUAL TO 52525

 ;TEST 171 125252 125252 SHIFTED BY @S2 = 177525 52525 PS = 10

014012	010701			SCOPE		
014014	012700	125252		MOV	#125252,%0	;LOAD R0 WITH 125252
014020	012701	125252		MOV	#125252,%0:1	;LOAD R0:1 WITH 125252
014024	000241			CLC		
014026	073077	000724		ASHC	@S2,%0	;SHIFT R0,R0:1 BY @S2
014032	013767	177776	000710	MOV	@#PS,PSW	;SAVE PS
014040	122767	000010	000702	CMPB	#10,PSW	;IS THE PS 10?
014046	001401			BEQ	,+4	
014050	000000			HLT		;THE PS IS NOT EQUAL TO 10
014052	022700	177525		CMP	#177525,%0	;IS THE RESULT 177525?
014056	001401			BEQ	,+4	
014060	000000			HLT		;R0 IS NOT EQUAL TO 177525
014062	022701	052525		CMP	#52525,%0:1	;IS THE RESULT 52525?
014066	001401			BEQ	,+4	
014070	000000			HLT		;R0:1 IS NOT EQUAL TO 52525

 ;TEST 172 125252 125252 SHIFTED BY @S1 = 177525 52525 PS = 10

014072	010701			SCOPE		
014074	012700	125252		MOV	#125252,%0	;LOAD R0 WITH 125252
014100	012701	125252		MOV	#125252,%0:1	;LOAD R0:1 WITH 125252
014104	000241			CLC		
014106	073037	014754		ASHC	@S1,%0	;SHIFT R0,R0:1 BY @S1
014112	013767	177776	000630	MOV	@#PS,PSW	;SAVE PS
014120	122767	000010	000622	CMPB	#10,PSW	;IS THE PS 10?
014126	001401			BEQ	,+4	
014130	000000			HLT		;THE PS IS NOT EQUAL TO 10
014132	022700	177525		CMP	#177525,%0	;IS THE RESULT 177525?
014136	001401			BEQ	,+4	
014140	000000			HLT		;R0 IS NOT EQUAL TO 177525
014142	022701	052525		CMP	#52525,%0:1	;IS THE RESULT 52525?
014146	001401			BEQ	,+4	
014150	000000			HLT		;R0:1 IS NOT EQUAL TO 52525

)TEST 173 125252 125252 SHIFTED BY %2 = 177525 52525 PS = 10

014152	010701			SCOPE		
014154	012700	125252		MOV	#125252,%0	)LOAD R0 WITH 125252
014160	012701	125252		MOV	#125252,%0!1	)LOAD R0!1 WITH 125252
014164	000241			CLC		
014166	073002			ASHC	%2,%0	)SHIFT R0,R0!1 BY %2
014170	013767	177776	000552	MOV	@#PS,PSW	)SAVE PS
014176	122767	000010	000544	CMPB	#10,PSW	)IS THE PS 10?
014204	001401			BEQ	,+4	
014206	000000			HLT		)THE PS IS NOT EQUAL TO 10
014210	022700	177525		CMP	#177525,%0	)IS THE RESULT 177525?
014214	001401			BEQ	,+4	
014216	000000			HLT		)R0 IS NOT EQUAL TO 177525
014220	022701	052525		CMP	#52525,%0!1	)IS THE RESULT 52525?
014224	001401			BEQ	,+4	
014226	000000			HLT		)R0!1 IS NOT EQUAL TO 52525

)TEST 174 125252 125252 SHIFTED BY (3)+ = 177525 52525 PS = 10

014230	010701			SCOPE		
014232	012700	125252		MOV	#125252,%0	)LOAD R0 WITH 125252
014236	012701	125252		MOV	#125252,%0!1	)LOAD R0!1 WITH 125252
014242	000241			CLC		
014244	073023			ASHC	(3)+,%0	)SHIFT R0,R0!1 BY (3)+
014246	013767	177776	000474	MOV	@#PS,PSW	)SAVE PS
014254	122767	000010	000466	CMPB	#10,PSW	)IS THE PS 10?
014262	001401			BEQ	,+4	
014264	000000			HLT		)THE PS IS NOT EQUAL TO 10
014266	022700	177525		CMP	#177525,%0	)IS THE RESULT 177525?
014272	001401			BEQ	,+4	
014274	000000			HLT		)R0 IS NOT EQUAL TO 177525
014276	022701	052525		CMP	#52525,%0!1	)IS THE RESULT 52525?
014302	001401			BEQ	,+4	
014304	000000			HLT		)R0!1 IS NOT EQUAL TO 52525

TEST 175 125252 125252 SHIFTED BY -(3) = 177525 52525 PS = 10

014306	010701			SCOPE		
014310	012700	125232		MOV	#125252,X0	;LOAD R0 WITH 125252
014314	012701	125232		MOV	#125252,X011	;LOAD R0!1 WITH 125252
014320	000241			CLC		
014322	073043			ASHC	-(3),X0	;SHIFT R0,R0!1 BY -(3)
014324	013767	177776	000416	MOV	@#PS,PSW	;SAVE PS
014332	122767	000010	000410	CMPB	#10,PSW	;IS THE PS 10?
014340	001401			BEQ	,+4	
014342	000000			HLT		;THE PS IS NOT EQUAL TO 10
014344	022700	177525		CMP	#177525,X0	;IS THE RESULT 177525?
014350	001401			BEQ	,+4	
014352	000000			HLT		;R0 IS NOT EQUAL TO 177525
014354	022701	052525		CMP	#52525,X011	;IS THE RESULT 52525?
014360	001401			BEQ	,+4	
014362	000000			HLT		;R0!1 IS NOT EQUAL TO 52525

TEST 176 125252 125252 SHIFTED BY 2(4) = 177252 125252 PS = 11

014364	010701			SCOPE		
014366	012700	125252		MOV	#125252,X0	;LOAD R0 WITH 125252
014372	012701	125252		MOV	#125252,X011	;LOAD R0!1 WITH 125252
014376	000241			CLC		
014400	073064	000022		ASHC	2(4),X0	;SHIFT R0,R0!1 BY 2(4)
014404	013767	177776	000336	MOV	@#PS,PSW	;SAVE PS
014412	122767	000011	000330	CMPB	#11,PSW	;IS THE PS 11?
014420	001401			BEQ	,+4	
014422	000000			HLT		;THE PS IS NOT EQUAL TO 11
014424	022700	177252		CMP	#177252,X0	;IS THE RESULT 177252?
014430	001401			BEQ	,+4	
014432	000000			HLT		;R0 IS NOT EQUAL TO 177252
014434	022701	125252		CMP	#125252,X011	;IS THE RESULT 125252?
014440	001401			BEQ	,+4	
014442	000000			HLT		;R0!1 IS NOT EQUAL TO 125252

ITEST 177 125252 125252 SHIFTED BY @(4) = 177525 52525 PS = 10

014444	010701			SCOPE		
014446	012700	125252		MOV	#125252,%0	;LOAD R0 WITH 125252
014452	012701	125232		MOV	#125252,%011	;LOAD R011 WITH 125252
014456	000241			CLC		
014460	073074	000000		ASHC	@(4),%0	;SHIFT R0,R011 BY @(4)
014464	013767	177776	000256	MOV	@#PS,PSW	;SAVE PS
014472	122767	000010	000250	CMPB	#10,PSW	;IS THE PS 10?
014500	001401			BEQ	,+4	
014502	000000			HLT		;THE PS IS NOT EQUAL TO 10
014504	022700	177525		CMP	#177525,%0	;IS THE RESULT 177525?
014510	001401			BEQ	,+4	
014512	000000			HLT		;R0 IS NOT EQUAL TO 177525
014514	022701	052525		CMP	#52525,%011	;IS THE RESULT 52525?
014520	001401			BEQ	,+4	
014522	000000			HLT		;R011 IS NOT EQUAL TO 52525

ITEST 200 125252 125252 SHIFTED BY @(4)+ = 177525 52525 PS = 10

014524	010701			SCOPE		
014526	012700	125252		MOV	#125252,%0	;LOAD R0 WITH 125252
014532	012701	125232		MOV	#125252,%011	;LOAD R011 WITH 125252
014536	000241			CLC		
014540	073034			ASHC	@(4)+,%0	;SHIFT R0,R011 BY @(4)+
014542	013767	177776	000200	MOV	@#PS,PSW	;SAVE PS
014550	122767	000010	000172	CMPB	#10,PSW	;IS THE PS 10?
014556	001401			BEQ	,+4	
014560	000000			HLT		;THE PS IS NOT EQUAL TO 10
014562	022700	177525		CMP	#177525,%0	;IS THE RESULT 177525?
014566	001401			BEQ	,+4	
014570	000000			HLT		;R0 IS NOT EQUAL TO 177525
014572	022701	052525		CMP	#52525,%011	;IS THE RESULT 52525?
014576	001401			BEQ	,+4	
014600	000000			HLT		;R011 IS NOT EQUAL TO 52525

 ITEST 201 125252 125252 SHIFTED BY @-(4) = 177525 52525 PS = 10

014602	010701			SCOPE		
014604	012700	125252		MOV	#125252,%0	ILOAD R0 WITH 125252
014610	012701	125252		MOV	#125252,%011	ILOAD R011 WITH 125252
014614	000241			CLC		
014616	073054			ASHC	@-(4),%0	I SHIFT R0,R011 BY @-(4)
014620	013767	177776	000122	MOV	@#PS,PSW	ISAVE PS
014626	122767	000010	000114	CMPB	#10,PSW	IIS THE PS 10?
014634	001401			BEQ	,+4	
014636	000000			HLT		I THE PS IS NOT EQUAL TO 10
014640	022700	177525		CMP	#177525,%0	IIS THE RESULT 177525?
014644	001401			BEQ	,+4	
014646	000000			HLT		I R0 IS NOT EQUAL TO 177525
014650	022701	052525		CMP	#52525,%011	IIS THE RESULT 52525?
014654	001401			BEQ	,+4	
014656	000000			HLT		I R011 IS NOT EQUAL TO 52525
014660	005267	164114		INC	ICNT	
014664	016737	164110	177570	MOV	ICNT,@#DISPLAY	
014672	022767	020000	164100	CMP	#20000,ICNT	
014700	001402			BEQ	,+6	
014702	000167	164074		JMP	BEG	
014706	005067	164066		CLR	ICNT	
014712	105737	177564		TSTB	@#177564	
014716	100375			BPL	,-4	
014720	112737	000037	177566	MOVB	#7,@#177566	
014726	013700	000042		MOV	@#42,%0	I GET MONITOR RETURN ADDRESS
014732	001404			BEQ	1\$	I SKIP IF NONE
014734	004710			JSR	7,(0)	I GO BACK TO THE MONITOR
014736	000240			NOP		
014740	000240			NOP		
014742	000240			NOP		
014744	000137	000200	1\$1	JMP	@#200	I RESTART THE PROGRAM
014750	000000			PSW1	0	
014752	000007			S01	7	
014754	177771			S11	-7	
014756	014754			S21	S1	
014760	177772			S31	-6	
	000001					.END

BEG	001002	DISPLA	=	177570	DUMMY	=	000000	HLT	=	000000
ICNT	001000	M	=	000006	N	=	000202	PS	=	177776
PSW	014750	R	=	000000	SCOPE	=	010701	SWR	=	177570
S0	014752	S1	=	014754	S2	=	014756	S3	=	014760
T	= 177762	,	=	014762						

ERRORS DETECTED: 0