

PDP11

ASH
MD-11-DCKBI-B

EP-DCKBI-B-DL-A
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FICHE 1 OF 1

NOV 1976
digital
MADE IN USA

| | | | | | |
|----|----|----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 |
| 37 | 38 | 39 | 40 | 41 | 42 |
| 43 | 44 | 45 | 46 | 47 | 48 |
| 49 | 50 | 51 | 52 | 53 | 54 |
| 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 |
| 67 | 68 | 69 | 70 | 71 | 72 |
| 73 | 74 | 75 | 76 | 77 | 78 |
| 79 | 80 | 81 | 82 | 83 | 84 |
| 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 |
| 97 | 98 | 99 | 100 | 101 | 102 |

B01

.REM %

IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DCKBI-B-D
PRODUCT NAME: ASH INSTRUCTION TEST
DATE RELEASED: OCTOBER, 1976
MAINTAINER: DIAGNOSTIC GROUP

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DCKBI.B.SRC

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TRAPVEC+4: 012716 ;MOVE SCOPE ADDRESS TO STACK
TRAPVEC+6: ADDRESS ;ADDRESS OF PPREVIOUS SCOPE
TRAPVEC+10: 000006 ;RETURN TO TEST AT SCOPE

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
THIS PROGRAM INITIALLY SETS THE STACK POINTER AT 500.

9.0 PROGRAM DESCRIPTION

THIS IS A TEST OF THE ASH INSTRUCTION. IT TESTS ASH WITH DIFFERENT SHIFT COUNTS IN ALL THE REGISTERS.

9.1 NOTE: THE LAST ROUTINE IN THIS DIAGNOSTIC IS DESIGNED TO VERIFY THAT ECO M7238-0004/FCO M7238-0004 (11/40 ONLY) HAS BEEN IMPLEMENTED AND IS FUNCTIONING PROPERLY. THIS ECO/FCO AFFECTS THE 11/40 EIS (M7238) OPTION ONLY; THUS, ALL 11/45'S MUST PASS THIS ROUTINE. ALSO, THE ECO HAS BEEN PHASED INTO PRODUCTION SO ALL 11/40'S WITH THE M7238 MODULE MUST PASS THE ROUTINE IN MANUFACTURING.
FIELD SERVICE - ALL M7238 MODULES INCORPORATING THIS ECO OR FCO WILL HAVE CS REVISION E OR ABOVE AND MUST PASS THIS ROUTINE. ANY M7238 MODULE BELOW THIS CS REVISION LEVEL WILL FAIL THE ROUTINE. THIS IS ACCEPTABLE ONLY IF THE CUSTOMER SOFTWARE DOES NOT MAKE USE OF THE DECREMENTED OPERAND RESULTING FROM THE EXECUTION OF AN EXTENDED INSTRUCTION (ASH, ASHC, MUL, OR DIV) USING DESTINATION MODE FIVE. IF THE CUSTOMER SOFTWARE DOES MAKE USE OF THIS DECREMENTED OPERAND THEN FCO M7238-0004 (CS REV. E) MUST BE INCORPORATED AND THE LAST ROUTINE IN THE DIAGNOSTIC MUST PASS. IF THE FIELD SERVICE TECHNICIAN HAS DETERMINED FROM THE ABOVE CRITERIA THAT A PARTICULAR M7238 MODULE IS NOT REQUIRED TO PASS THE LAST ROUTINE, THEN HE MAY INSERT THE APPROPRIATE CODE TO JUMP FROM THE 'SCOPE' INSTRUCTION TO 'ENDPAS', THUS BYPASSING THE ROUTINE. SEE THE ECO OR FCO FOR MORE INFORMATION.

%

.TITLE MAINDEC-11-DCKBI-B ASH TEST
;COPYRIGHT 1972,1976 DIGITAL EQUIPMENT CORP., MAYNARD, MASS
;PROGRAM BY BOB BRAIN

177564
177566

.ENABL ABS
TPS= 177564
TPB= 177566

010701
000000
177776
177570
177570
000001
000000
000000

SCOPE= 10701
HLT= HALT
PS= 177776
SWR= 177570
DISPLAY=SWR
N= 1
DUMMY= HALT
M=0

000000

. = 0

; TRAP CATCHER 0 - 776

000046

000046
013730

. = 46
SENDAD

000052

000052
000000

. = 52
0

000200

000200
000167

000576

. = 200

JMP BEG1

001000

001000
000000

. = 1000
ICNT: 0

001002

023727

000042

013730

BEG1:

0
CMP 2#42, #SENDAD

; PASS COUNT
; AUTOMATIC MODE?
; YES, SKIP HEADER
; GET ADDRESS OF PRINT MESSAGE

001010

001412

001012

012705

013756

001016

105737

177564

IS:

TSTB 2#TPS

; CHECK FOR READY

001022

100375

001024

105715

001026

001403

001030

112537

177566

BPL -4
TSTB (5)
BEQ BEG
MOVB (5)+, 2#TPB

; END OF MESSAGE?
; YES, GO START TEST
; PRINT CHARACTER

001034

000770

BR IS

001036

012706

000500

BEG:

MOV #500, %6

; ** STACK AT 500 **

001042

005037

177776

001046

032737

001000

177570

CLR 2#PS
BIT #1000, 2#SWR

; WHICH REGISTER SET?

001054

001403

001056

012737

004000

177776

001064

032737

000400

177570

BEQ .+10
MOV #4000, 2#PS
BIT #400, 2#SWR

; ALTERNATE!
; LOAD UB REG??

001072

001403

001074

113737

177570

177770

MOVB 2#SWR, 2#177770

:TEST 1 ASH 0 SHIFTED BY -16. = 0 PS = 4

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001102 | 010701 | | | SCOPE | | |
| 001104 | 012700 | 000000 | | MOV | #0,%0 | ;LOAD RO WITH 0 |
| 001110 | 072027 | 177760 | | ASH | #-16,%0 | ;SHIFT RO BY -16. |
| 001114 | 013767 | 177776 | 012622 | MOV | 2#PS,PSW | ;SAVE PS |
| 001122 | 122767 | 000004 | 012614 | CMPB | #4,PSW | ;IS THE PS 4? |
| 001130 | 001401 | | | BEQ | +.4 | |
| 001132 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 4 |
| 001134 | 022700 | 000000 | | CMP | #0,%0 | ;IS THE RESULT 0? |
| 001140 | 001401 | | | BEQ | +.4 | |
| 001142 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 0 |

:TEST 2 ASH 0 SHIFTED BY 0 = 0 PS = 4

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001144 | 010701 | | | SCOPE | | |
| 001146 | 012700 | 000000 | | MOV | #0,%0 | ;LOAD RO WITH 0 |
| 001152 | 072027 | 000000 | | ASH | #0,%0 | ;SHIFT RO BY 0 |
| 001156 | 013767 | 177776 | 012560 | MOV | 2#PS,PSW | ;SAVE PS |
| 001164 | 122767 | 000004 | 012552 | CMPB | #-1,PSW | ;IS THE PS 4? |
| 001172 | 001401 | | | BEQ | +.4 | |
| 001174 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 4 |
| 001176 | 022700 | 000000 | | CMP | #0,%0 | ;IS THE RESULT 0? |
| 001202 | 001401 | | | BEQ | +.4 | |
| 001204 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 0 |

:TEST 3 ASH 0 SHIFTED BY 16. = 0 PS = 4

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001206 | 010701 | | | SCOPE | | |
| 001210 | 012700 | 000000 | | MOV | #0,%0 | ;LOAD RO WITH 0 |
| 001214 | 072027 | 000020 | | ASH | #16,%0 | ;SHIFT RO BY 16. |
| 001220 | 013767 | 177776 | 012516 | MOV | 2#PS,PSW | ;SAVE PS |
| 001226 | 122767 | 000004 | 012510 | CMPB | #4,PSW | ;IS THE PS 4? |
| 001234 | 001401 | | | BEQ | +.4 | |
| 001236 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 4 |
| 001240 | 022700 | 000000 | | CMP | #0,%0 | ;IS THE RESULT 0? |
| 001244 | 001401 | | | BEQ | +.4 | |
| 001246 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 0 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001250 | 010701 | | | SCOPE | | |
| 001252 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001256 | 072027 | 000000 | | ASH | #0,%0 | ;SHIFT RO BY 0 |
| 001262 | 013767 | 177776 | 012454 | MOV | 2#PS,PSW | ;SAVE PS |
| 001270 | 122767 | 000000 | 012446 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001276 | 001401 | | | BEQ | +.4 | |
| 001300 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001302 | 022700 | 000001 | | CMP | #1,%0 | ;IS THE RESULT 1? |
| 001306 | 001401 | | | BEQ | +.4 | |
| 001310 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 1 |

;TEST 5 ASH 1 SHIFTED BY 1 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001312 | 010701 | | | SCOPE | | |
| 001314 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001320 | 072027 | 000001 | | ASH | #1,%0 | ;SHIFT RO BY 1 |
| 001324 | 013767 | 177776 | 012412 | MOV | 2#PS,PSW | ;SAVE PS |
| 001332 | 122767 | 000000 | 012404 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001340 | 001401 | | | BEQ | +.4 | |
| 001342 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001344 | 022700 | 000002 | | CMP | #2,%0 | ;IS THE RESULT 2? |
| 001350 | 001401 | | | BEQ | +.4 | |
| 001352 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 2 |

;TEST 6 ASH 1 SHIFTED BY 2 = 4 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001354 | 010701 | | | SCOPE | | |
| 001356 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001362 | 072027 | 000002 | | ASH | #2,%0 | ;SHIFT RO BY 2 |
| 001366 | 013767 | 177776 | 012350 | MOV | 2#PS,PSW | ;SAVE PS |
| 001374 | 122767 | 000000 | 012342 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001402 | 001401 | | | BEQ | +.4 | |
| 001404 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001406 | 022700 | 000004 | | CMP | #4,%0 | ;IS THE RESULT 4? |
| 001412 | 001401 | | | BEQ | +.4 | |
| 001414 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 4 |

H01

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DCKBIB.SRC

```
*****  
:TEST 7 ASH 1 SHIFTED BY 3 = 10 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001416 | 010701 | | | SCOPE | | |
| 001420 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001424 | 072027 | 000003 | | ASH | #3,%0 | ;SHIFT RO BY 3 |
| 001430 | 013767 | 177776 | 012306 | MOV | @#PS,PSW | ;SAVE PS |
| 001436 | 122767 | 000000 | 012300 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001444 | 001401 | | | BEQ | .+4 | |
| 001446 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001450 | 022700 | 000010 | | CMP | #10,%0 | ;IS THE RESULT 10? |
| 001454 | 001401 | | | BEQ | .+4 | |
| 001456 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 10 |

```
*****  
:TEST 10 ASH 1 SHIFTED BY 4 = 20 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001460 | 010701 | | | SCOPE | | |
| 001462 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001466 | 072027 | 000004 | | ASH | #4,%0 | ;SHIFT RO BY 4 |
| 001472 | 013767 | 177776 | 012244 | MOV | @#PS,PSW | ;SAVE PS |
| 001500 | 122767 | 000000 | 012236 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001506 | 001401 | | | BEQ | .+4 | |
| 001510 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001512 | 022700 | 000020 | | CMP | #20,%0 | ;IS THE RESULT 20? |
| 001516 | 001401 | | | BEQ | .+4 | |
| 001520 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 20 |

```
*****  
:TEST 11 ASH 1 SHIFTED BY 5 = 40 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001522 | 010701 | | | SCOPE | | |
| 001524 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001530 | 072027 | 000005 | | ASH | #5,%0 | ;SHIFT RO BY 5 |
| 001534 | 013767 | 177776 | 012202 | MOV | @#PS,PSW | ;SAVE PS |
| 001542 | 122767 | 000000 | 012174 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001550 | 001401 | | | BEQ | .+4 | |
| 001552 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001554 | 022700 | 000040 | | CMP | #40,%0 | ;IS THE RESULT 40? |
| 001560 | 001401 | | | BEQ | .+4 | |
| 001562 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 40 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001564 | 010701 | | | SCOPE | | |
| 001566 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001572 | 072027 | 000006 | | ASH | #6,%0 | ;SHIFT RO BY 6 |
| 001576 | 013767 | 177776 | 012140 | MOV | 2#PS,PSW | ;SAVE PS |
| 001604 | 122767 | 000000 | 012132 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001612 | 001401 | | | BEQ | +.4 | |
| 001614 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001616 | 022700 | 000100 | | CMP | #100,%0 | ;IS THE RESULT 100? |
| 001622 | 001401 | | | BEQ | +.4 | |
| 001624 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 100 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001626 | 010701 | | | SCOPE | | |
| 001630 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001634 | 072027 | 000007 | | ASH | #7,%0 | ;SHIFT RO BY 7 |
| 001640 | 013767 | 177776 | 012076 | MOV | 2#PS,PSW | ;SAVE PS |
| 001646 | 122767 | 000000 | 012070 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001654 | 001401 | | | BEQ | +.4 | |
| 001656 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001660 | 022700 | 000200 | | CMP | #200,%0 | ;IS THE RESULT 200? |
| 001664 | 001401 | | | BEQ | +.4 | |
| 001666 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 200 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001670 | 010701 | | | SCOPE | | |
| 001672 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001676 | 072027 | 000010 | | ASH | #10,%0 | ;SHIFT RO BY 10 |
| 001702 | 013767 | 177776 | 012034 | MOV | 2#PS,PSW | ;SAVE PS |
| 001710 | 122767 | 000000 | 012026 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001716 | 001401 | | | BEQ | +.4 | |
| 001720 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001722 | 022700 | 000400 | | CMP | #400,%0 | ;IS THE RESULT 400? |
| 001726 | 001401 | | | BEQ | +.4 | |
| 001730 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 400 |

;TEST 15 ASH 1 SHIFTED BY 11 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001732 | 010701 | | | SCOPE | | |
| 001734 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 001740 | 072027 | 000011 | | ASH | #11,%0 | ;SHIFT RO BY 11 |
| 001744 | 013767 | 177776 | 011772 | MOV | 2#PS,PSW | ;SAVE PS |
| 001752 | 122767 | 000000 | 011764 | CMPB | #0,PSW | ;IS THE PS 0? |
| 001760 | 001401 | | | BEQ | +.4 | |
| 001762 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 001764 | 022700 | 001000 | | CMP | #1000,%0 | ;IS THE RESULT 1000? |
| 001770 | 001401 | | | BEQ | +.4 | |
| 001772 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 1000 |

;TEST 16 ASH 1 SHIFTED BY 12 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 001774 | 010701 | | | SCOPE | | |
| 001776 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 002002 | 072027 | 000012 | | ASH | #12,%0 | ;SHIFT RO BY 12 |
| 002006 | 013767 | 177776 | 011730 | MOV | 2#PS,PSW | ;SAVE PS |
| 002014 | 122767 | 000000 | 011722 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002022 | 001401 | | | BEQ | +.4 | |
| 002024 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002026 | 022700 | 002000 | | CMP | #2000,%0 | ;IS THE RESULT 2000? |
| 002032 | 001401 | | | BEQ | +.4 | |
| 002034 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 2000 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 002036 | 010701 | | | SCOPE | | |
| 002040 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD RO WITH 1 |
| 002044 | 072027 | 000013 | | ASH | #13,%0 | ;SHIFT RO BY 13 |
| 002050 | 013767 | 177776 | 011666 | MOV | 2#PS,PSW | ;SAVE PS |
| 002056 | 122767 | 000000 | 011660 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002064 | 001401 | | | BEQ | +.4 | |
| 002066 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002070 | 022700 | 004000 | | CMP | #4000,%0 | ;IS THE RESULT 4000? |
| 002074 | 001401 | | | BEQ | +.4 | |
| 002076 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 4000 |

:TEST 20 ASH 1 SHIFTED BY 14 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 002100 | 010701 | | | SCOPE | | |
| 002102 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD R0 WITH 1 |
| 002106 | 072027 | 000014 | | ASH | #14,%0 | ;SHIFT R0 BY 14 |
| 002112 | 013767 | 177776 | 011624 | MOV | 2#PS,PSW | ;SAVE PS |
| 002120 | 122767 | 000000 | 011616 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002126 | 001401 | | | BEQ | +.4 | |
| 002130 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002132 | 022700 | 010000 | | CMP | #10000,%0 | ;IS THE RESULT 10000? |
| 002136 | 001401 | | | BEQ | +.4 | |
| 002140 | 000000 | | | HLT | | ;R0 IS NOT EQUAL TO 10000 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 002142 | 010701 | | | SCOPE | | |
| 002144 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD R0 WITH 1 |
| 002150 | 072027 | 000015 | | ASH | #15,%0 | ;SHIFT R0 BY 15 |
| 002154 | 013767 | 177776 | 011562 | MOV | 2#PS,PSW | ;SAVE PS |
| 002162 | 122767 | 000000 | 011554 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002170 | 001401 | | | BEQ | +.4 | |
| 002172 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002174 | 022700 | 020000 | | CMP | #20000,%0 | ;IS THE RESULT 20000? |
| 002200 | 001401 | | | BEQ | +.4 | |
| 002202 | 000000 | | | HLT | | ;R0 IS NOT EQUAL TO 20000 |

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

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 002204 | 010701 | | | SCOPE | | |
| 002206 | 012700 | 000001 | | MOV | #1,%0 | ;LOAD R0 WITH 1 |
| 002212 | 072027 | 000016 | | ASH | #16,%0 | ;SHIFT R0 BY 16 |
| 002216 | 013767 | 177776 | 011520 | MOV | 2#PS,PSW | ;SAVE PS |
| 002224 | 122767 | 000000 | 011512 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002232 | 001401 | | | BEQ | +.4 | |
| 002234 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002236 | 022700 | 040000 | | CMP | #40000,%0 | ;IS THE RESULT 40000? |
| 002242 | 001401 | | | BEQ | +.4 | |
| 002244 | 000000 | | | HLT | | ;R0 IS NOT EQUAL TO 40000 |

;TEST 23 ASH 40000 SHIFTED BY 177762 = 1 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002246 | 010701 | | | SCOPE | | |
| 002250 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002254 | 072027 | 177762 | | ASH | #177762,%0 | ;SHIFT RO BY 177762 |
| 002260 | 013767 | 177776 | 011456 | MOV | 2#PS,PSW | ;SAVE PS |
| 002266 | 122767 | 000000 | 011450 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002274 | 001401 | | | BEQ | +.4 | |
| 002276 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002300 | 022700 | 000001 | | CMP | #1,%0 | ;IS THE RESULT 1? |
| 002304 | 001401 | | | BEQ | +.4 | |
| 002306 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 1 |

;TEST 24 ASH 40000 SHIFTED BY 177763 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002310 | 010701 | | | SCOPE | | |
| 002312 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002316 | 072027 | 177763 | | ASH | #177763,%0 | ;SHIFT RO BY 177763 |
| 002322 | 013767 | 177776 | 011414 | MOV | 2#PS,PSW | ;SAVE PS |
| 002330 | 122767 | 000000 | 011406 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002336 | 001401 | | | BEQ | +.4 | |
| 002340 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002342 | 022700 | 000002 | | CMP | #2,%0 | ;IS THE RESULT 2? |
| 002346 | 001401 | | | BEQ | +.4 | |
| 002350 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 2 |

;TEST 25 ASH 40000 SHIFTED BY 177764 = 4 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002352 | 010701 | | | SCOPE | | |
| 002354 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002360 | 072027 | 177764 | | ASH | #177764,%0 | ;SHIFT RO BY 177764 |
| 002364 | 013767 | 177776 | 011352 | MOV | 2#PS,PSW | ;SAVE PS |
| 002372 | 122767 | 000000 | 011344 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002400 | 001401 | | | BEQ | +.4 | |
| 002402 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002404 | 022700 | 000004 | | CMP | #4,%0 | ;IS THE RESULT 4? |
| 002410 | 001401 | | | BEQ | +.4 | |
| 002412 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 4 |

MO1

MAINDEC-11-DCKBI-B ASH TEST
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;TEST 26 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

002414 010701
002416 012700 040000
002422 072027 177765
002426 013767 177776 011310
002434 122767 000000 011302
002442 001401
002444 000000
002446 022700 000010
002452 001401
002454 000000

SCOPE
MOV #40000,%0 ;LOAD RO WITH 40000
ASH #177765,%0 ;SHIFT RO BY 177765
MOV @#PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #10,%0 ;IS THE RESULT 10?
BEQ .+4
HLT ;RO IS NOT EQUAL TO 10

;TEST 27 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

002456 010701
002460 012700 040000
002464 072027 177766
002470 013767 177776 011246
002476 122767 000000 011240
002504 001401
002506 000000
002510 022700 000020
002514 001401
002516 000000

SCOPE
MOV #40000,%0 ;LOAD RO WITH 40000
ASH #177766,%0 ;SHIFT RO BY 177766
MOV @#PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #20,%0 ;IS THE RESULT 20?
BEQ .+4
HLT ;RO IS NOT EQUAL TO 20

;TEST 30 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

002520 010701
002522 012700 040000
002526 072027 177767
002532 013767 177776 011204
002540 122767 000000 011176
002546 001401
002550 000000
002552 022700 000040
002556 001401
002560 000000

SCOPE
MOV #40000,%0 ;LOAD RO WITH 40000
ASH #177767,%0 ;SHIFT RO BY 177767
MOV @#PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #40,%0 ;IS THE RESULT 40?
BEQ .+4
HLT ;RO IS NOT EQUAL TO 40

;TEST 31 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002562 | 010701 | | | SCOPE | | |
| 002564 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002570 | 072027 | 177770 | | ASH | #177770,%0 | ;SHIFT RO BY 177770 |
| 002574 | 013767 | 177776 | 011142 | MOV | 2#PS,PSW | ;SAVE PS |
| 002602 | 122767 | 000000 | 011134 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002610 | 001401 | | | BEQ | +.4 | |
| 002612 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002614 | 022700 | 000100 | | CMP | #100,%0 | ;IS THE RESULT 100? |
| 002620 | 001401 | | | BEQ | +.4 | |
| 002622 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 100 |

;TEST 32 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002624 | 010701 | | | SCOPE | | |
| 002626 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002632 | 072027 | 177771 | | ASH | #177771,%0 | ;SHIFT RO BY 177771 |
| 002636 | 013767 | 177776 | 011100 | MOV | 2#PS,PSW | ;SAVE PS |
| 002644 | 122767 | 000000 | 011072 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002652 | 001401 | | | BEQ | +.4 | |
| 002654 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002656 | 022700 | 000200 | | CMP | #200,%0 | ;IS THE RESULT 200? |
| 002662 | 001401 | | | BEQ | +.4 | |
| 002664 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 200 |

;TEST 33 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002666 | 010701 | | | SCOPE | | |
| 002670 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 002674 | 072027 | 177772 | | ASH | #177772,%0 | ;SHIFT RO BY 177772 |
| 002700 | 013767 | 177776 | 011036 | MOV | 2#PS,PSW | ;SAVE PS |
| 002706 | 122767 | 000000 | 011030 | CMPB | #0,PSW | ;IS THE PS 0? |
| 002714 | 001401 | | | BEQ | +.4 | |
| 002716 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 002720 | 022700 | 000400 | | CMP | #400,%0 | ;IS THE RESULT 400? |
| 002724 | 001401 | | | BEQ | +.4 | |
| 002726 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 400 |

:TEST 34 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002730 | 010701 | | | SCOPE | | |
| 002732 | 012700 | 040000 | | MOV | #40000,%0 | :LOAD R0 WITH 40000 |
| 002736 | 072027 | 177773 | | ASH | #177773,%0 | :SHIFT R0 BY 177773 |
| 002742 | 013767 | 177776 | 010774 | MOV | @PS,PSW | :SAVE PS |
| 002750 | 122767 | 000000 | 010766 | CMPB | #0,PSW | :IS THE PS 0? |
| 002756 | 001401 | | | BEQ | +.4 | |
| 002760 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 002762 | 022700 | 001000 | | CMP | #1000,%0 | :IS THE RESULT 1000? |
| 002766 | 001401 | | | BEQ | +.4 | |
| 002770 | 000000 | | | HLT | | :R0 IS NOT EQUAL TO 1000 |

:TEST 35 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 002772 | 010701 | | | SCOPE | | |
| 002774 | 012700 | 040000 | | MOV | #40000,%0 | :LOAD R0 WITH 40000 |
| 003000 | 072027 | 177774 | | ASH | #177774,%0 | :SHIFT R0 BY 177774 |
| 003004 | 013767 | 177776 | 010732 | MOV | @PS,PSW | :SAVE PS |
| 003012 | 122767 | 000000 | 010724 | CMPB | #0,PSW | :IS THE PS 0? |
| 003020 | 001401 | | | BEQ | +.4 | |
| 003022 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 003024 | 022700 | 002000 | | CMP | #2000,%0 | :IS THE RESULT 2000? |
| 003030 | 001401 | | | BEQ | +.4 | |
| 003032 | 000000 | | | HLT | | :R0 IS NOT EQUAL TO 2000 |

:TEST 36 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003034 | 010701 | | | SCOPE | | |
| 003036 | 012700 | 040000 | | MOV | #40000,%0 | :LOAD R0 WITH 40000 |
| 003042 | 072027 | 177775 | | ASH | #177775,%0 | :SHIFT R0 BY 177775 |
| 003046 | 013767 | 177776 | 010670 | MOV | @PS,PSW | :SAVE PS |
| 003054 | 122767 | 000000 | 010662 | CMPB | #0,PSW | :IS THE PS 0? |
| 003062 | 001401 | | | BEQ | +.4 | |
| 003064 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 003066 | 022700 | 004000 | | CMP | #4000,%0 | :IS THE RESULT 4000? |
| 003072 | 001401 | | | BEQ | +.4 | |
| 003074 | 000000 | | | HLT | | :R0 IS NOT EQUAL TO 4000 |

:TEST 37 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003076 | 010701 | | | SCOPE | | |
| 003100 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 003104 | 072027 | 177776 | | ASH | #177776,%0 | ;SHIFT RO BY 177776 |
| 003110 | 013767 | 177776 | 010626 | MOV | 2#PS,PSW | ;SAVE PS |
| 003116 | 122767 | 000000 | 010620 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003124 | 001401 | | | BEQ | +.4 | |
| 003126 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003130 | 022700 | 010000 | | CMP | #10000,%0 | ;IS THE RESULT 10000? |
| 003134 | 001401 | | | BEQ | +.4 | |
| 003136 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 10000 |

:TEST 40 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003140 | 010701 | | | SCOPE | | |
| 003142 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 003146 | 072027 | 177777 | | ASH | #177777,%0 | ;SHIFT RO BY 177777 |
| 003152 | 013767 | 177776 | 010564 | MOV | 2#PS,PSW | ;SAVE PS |
| 003160 | 122767 | 000000 | 010556 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003166 | 001401 | | | BEQ | +.4 | |
| 003170 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003172 | 022700 | 020000 | | CMP | #20000,%0 | ;IS THE RESULT 20000? |
| 003176 | 001401 | | | BEQ | +.4 | |
| 003200 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 20000 |

:TEST 1 ASH 40000 SHIFTED BY 0 = 40000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 003202 | 010701 | | | SCOPE | | |
| 003204 | 012700 | 040000 | | MOV | #40000,%0 | ;LOAD RO WITH 40000 |
| 003210 | 072027 | 000000 | | ASH | #0,%0 | ;SHIFT RO BY 0 |
| 003214 | 013767 | 177776 | 010522 | MOV | 2#PS,PSW | ;SAVE PS |
| 003222 | 122767 | 000000 | 010514 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003230 | 001401 | | | BEQ | +.4 | |
| 003232 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003234 | 022700 | 040000 | | CMP | #40000,%0 | ;IS THE RESULT 40000? |
| 003240 | 001401 | | | BEQ | +.4 | |
| 003242 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 40000 |

: TEST 42 ASH 100000 SHIFTED BY -15. = -1 PS = 10
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 003244 | 010701 | | | SCOPE | | |
| 003246 | 012700 | 100000 | | MOV | #100000,%0 | ;LOAD RO WITH 100000 |
| 003252 | 072027 | 177761 | | ASH | #-15,%0 | ;SHIFT RO BY -15. |
| 003256 | 013767 | 177776 | 010460 | MOV | 2#PS,PSW | ;SAVE PS |
| 003264 | 122767 | 000010 | 010452 | CMPB | #10,PSW | ;IS THE PS 10? |
| 003272 | 001401 | | | BEQ | .+4 | |
| 003274 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 003276 | 022700 | 177777 | | CMP | #-1,%0 | ;IS THE RESULT -1? |
| 003302 | 001401 | | | BEQ | .+4 | |
| 003304 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO -1 |

: TEST 43 ASH -1 SHIFTED BY 15. = 100000 PS = 11
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 003306 | 010701 | | | SCOPE | | |
| 003310 | 012700 | 177777 | | MOV | #-1,%0 | ;LOAD RO WITH -1 |
| 003314 | 072027 | 000017 | | ASH | #15,%0 | ;SHIFT RO BY 15. |
| 003320 | 013767 | 177776 | 010416 | MOV | 2#PS,PSW | ;SAVE PS |
| 003326 | 122767 | 000011 | 010410 | CMPB | #11,PSW | ;IS THE PS 11? |
| 003334 | 001401 | | | BEQ | .+4 | |
| 003336 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 003340 | 022700 | 100000 | : | CMP | #100000,%0 | ;IS THE RESULT 100000? |
| 003344 | 001401 | | | BEQ | .+4 | |
| 003346 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 100000 |

: TEST 44 ASH -1 SHIFTED BY 16. = 0 PS = 7
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 003350 | 010701 | | | SCOPE | | |
| 003352 | 012700 | 177777 | | MOV | #-1,%0 | ;LOAD RO WITH -1 |
| 003356 | 072027 | 000020 | | ASH | #16,%0 | ;SHIFT RO BY 16. |
| 003362 | 013767 | 177776 | 010354 | MOV | 2#PS,PSW | ;SAVE PS |
| 003370 | 122767 | 000007 | 010346 | CMPB | #7,PSW | ;IS THE PS 7? |
| 003376 | 001401 | | | BEQ | .+4 | |
| 003400 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 7 |
| 003402 | 022700 | 000000 | | CMP | #0,%0 | ;IS THE RESULT 0? |
| 003406 | 001401 | | | BEQ | .+4 | |
| 003410 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 0 |

: TEST 45 ASH 137777 SHIFTED BY 15. = 100000 PS = 13
: *****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 003412 | 010701 | | | SCOPE | | |
| 003414 | 012700 | 137777 | | MOV | #137777,%0 | ;LOAD RO WITH 137777 |
| 003420 | 072027 | 000017 | | ASH | #15,%0 | ;SHIFT RO BY 15. |
| 003424 | 013767 | 177776 | 010312 | MOV | 2#PS,PSW | ;SAVE PS |
| 003432 | 122767 | 000013 | 010304 | CMPB | #13,PSW | ;IS THE PS 13? |
| 003440 | 001401 | | | BEQ | +.4 | |
| 003442 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 13 |
| 003444 | 022700 | 100000 | | CMP | #100000,%0 | ;IS THE RESULT 100000? |
| 003450 | 001401 | | | BEQ | +.4 | |
| 003452 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 100000 |

: TEST 46 ASH 125252 SHIFTED BY 1 = 52524 PS = 3
: *****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003454 | 010701 | | | SCOPE | | |
| 003456 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 003462 | 072027 | 000001 | | ASH | #1,%0 | ;SHIFT RO BY 1 |
| 003466 | 013767 | 177776 | 010250 | MOV | 2#PS,PSW | ;SAVE PS |
| 003474 | 122767 | 000003 | 010242 | CMPB | #3,PSW | ;IS THE PS 3? |
| 003502 | 001401 | | | BEQ | +.4 | |
| 003504 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 3 |
| 003506 | 022700 | 052524 | | CMP | #52524,%0 | ;IS THE RESULT 52524? |
| 003512 | 001401 | | | BEQ | +.4 | |
| 003514 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 52524 |

: TEST 47 ASH 125252 SHIFTED BY -1 = 152525 PS = 10
: *****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 003516 | 010701 | | | SCOPE | | |
| 003520 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 003524 | 072027 | 177777 | | ASH | #-1,%0 | ;SHIFT RO BY -1 |
| 003530 | 013767 | 177776 | 010206 | MOV | 2#PS,PSW | ;SAVE PS |
| 003536 | 122767 | 000010 | 010200 | CMPB | #10,PSW | ;IS THE PS 10? |
| 003544 | 001401 | | | BEQ | +.4 | |
| 003546 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 003550 | 022700 | 152525 | | CMP | #152525,%0 | ;IS THE RESULT 152525? |
| 003554 | 001401 | | | BEQ | +.4 | |
| 003556 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 152525 |

F02

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;TEST 50 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 003560 | 010701 | | | SCOPE | | |
| 003562 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD R0 WITH 125252 |
| 003566 | 072027 | 177776 | | ASH | #-2,%0 | ;SHIFT R0 BY -2 |
| 003572 | 013767 | 177776 | 010144 | MOV | @#PS,PSW | ;SAVE PS |
| 003600 | 122767 | 000011 | 010136 | CMPB | #11,PSW | ;IS THE PS 11? |
| 003606 | 001401 | | | BEQ | +.4 | |
| 003610 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 003612 | 022700 | 165252 | | CMP | #165252,%0 | ;IS THE RESULT 165252? |
| 003616 | 001401 | | | BEQ | +.4 | |
| 003620 | 000000 | | | HLT | | ;R0 IS NOT EQUAL TO 165252 |

;TEST 51 ASH 40000 SHIFTED BY 177762 = 1 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003622 | 010701 | | | SCOPE | | |
| 003624 | 012700 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 003630 | 072127 | 177762 | | ASH | #177762,%1 | ;SHIFT R1 BY 177762 |
| 003634 | 013767 | 177776 | 010102 | MOV | @#PS,PSW | ;SAVE PS |
| 003642 | 122767 | 000000 | 010074 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003650 | 001401 | | | BEQ | +.4 | |
| 003652 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003654 | 022701 | 000001 | | CMP | #1,%1 | ;IS THE RESULT 1? |
| 003660 | 001401 | | | BEQ | +.4 | |
| 003662 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 1 |

;TEST 52 ASH 40000 SHIFTED BY 177763 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003664 | 010701 | | | SCOPE | | |
| 003666 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 003672 | 072127 | 177763 | | ASH | #177763,%1 | ;SHIFT R1 BY 177763 |
| 003676 | 013767 | 177776 | 010040 | MOV | @#PS,PSW | ;SAVE PS |
| 003704 | 122767 | 000000 | 010032 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003712 | 001401 | | | BEQ | +.4 | |
| 003714 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003716 | 022701 | 000002 | | CMP | #2,%1 | ;IS THE RESULT 2? |
| 003722 | 001401 | | | BEQ | +.4 | |
| 003724 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 2 |

:TEST 53 ASH 40000 SHIFTED BY 177764 = 4 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003726 | 010701 | | | SCOPE | | |
| 003730 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 003734 | 072127 | 177764 | | ASH | #177764,%1 | ;SHIFT R1 BY 177764 |
| 003740 | 013767 | 177776 | 007776 | MOV | @#PS,PSW | ;SAVE PS |
| 003746 | 122767 | 000000 | 007770 | CMPB | #0,PSW | ;IS THE PS 0? |
| 003754 | 001401 | | | BEQ | +.4 | |
| 003756 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 003760 | 022701 | 000004 | | CMP | #4,%1 | ;IS THE RESULT 4? |
| 003764 | 001401 | | | BEQ | +.4 | |
| 003766 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 4 |

:TEST 54 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 003770 | 010701 | | | SCOPE | | |
| 003772 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 003776 | 072127 | 177765 | | ASH | #177765,%1 | ;SHIFT R1 BY 177765 |
| 004002 | 013767 | 177776 | 007734 | MOV | @#PS,PSW | ;SAVE PS |
| 004010 | 122767 | 000000 | 007726 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004016 | 001401 | | | BEQ | +.4 | |
| 004020 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004022 | 022701 | 000010 | | CMP | #10,%1 | ;IS THE RESULT 10? |
| 004026 | 001401 | | | BEQ | +.4 | |
| 004030 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 10 |

:TEST 55 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004032 | 010701 | | | SCOPE | | |
| 004034 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004040 | 072127 | 177766 | | ASH | #177766,%1 | ;SHIFT R1 BY 177766 |
| 004044 | 013767 | 177776 | 007672 | MOV | @#PS,PSW | ;SAVE PS |
| 004052 | 122767 | 000000 | 007664 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004060 | 001401 | | | BEQ | +.4 | |
| 004062 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004064 | 022701 | 000020 | | CMP | #20,%1 | ;IS THE RESULT 20? |
| 004070 | 001401 | | | BEQ | +.4 | |
| 004072 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 20 |

;TEST 56 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004074 | 010701 | | | SCOPE | | |
| 004076 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004102 | 072127 | 177767 | | ASH | #177767,%1 | ;SHIFT R1 BY 177767 |
| 004106 | 013767 | 177776 | 007630 | MOV | @#PS,PSW | ;SAVE PS |
| 004114 | 122767 | 000000 | 007622 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004122 | 001401 | | | BEQ | +.4 | |
| 004124 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004126 | 022701 | 000040 | | CMP | #40,%1 | ;IS THE RESULT 40? |
| 004132 | 001401 | | | BEQ | +.4 | |
| 004134 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 40 |

;TEST 57 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004136 | 010701 | | | SCOPE | | |
| 004140 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004144 | 072127 | 177770 | | ASH | #177770,%1 | ;SHIFT R1 BY 177770 |
| 004150 | 013767 | 177776 | 007566 | MOV | @#PS,PSW | ;SAVE PS |
| 004156 | 122767 | 000000 | 007560 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004164 | 001401 | | | BEQ | +.4 | |
| 004166 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004170 | 022701 | 000100 | | CMP | #100,%1 | ;IS THE RESULT 100? |
| 004174 | 001401 | | | BEQ | +.4 | |
| 004176 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 100 |

;TEST 60 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004200 | 010701 | | | SCOPE | | |
| 004202 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004206 | 072127 | 177771 | | ASH | #177771,%1 | ;SHIFT R1 BY 177771 |
| 004212 | 013767 | 177776 | 007524 | MOV | @#PS,PSW | ;SAVE PS |
| 004220 | 122767 | 000000 | 007516 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004226 | 001401 | | | BEQ | +.4 | |
| 004230 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004232 | 022701 | 000200 | | CMP | #200,%1 | ;IS THE RESULT 200? |
| 004236 | 001401 | | | BEQ | +.4 | |
| 004240 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 200 |

;TEST 61 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004242 | 010701 | | | SCOPE | | |
| 004244 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004250 | 072127 | 177772 | | ASH | #177772,%1 | ;SHIFT R1 BY 177772 |
| 004254 | 013767 | 177776 | 007462 | MOV | @#PS,PSW | ;SAVE PS |
| 004262 | 122767 | 000000 | 007454 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004270 | 001401 | | | BEQ | +.4 | |
| 004272 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004274 | 022701 | 000400 | | CMP | #400,%1 | ;IS THE RESULT 400? |
| 004300 | 001401 | | | BEQ | +.4 | |
| 004302 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 400 |

;TEST 62 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004304 | 010701 | | | SCOPE | | |
| 004306 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004312 | 072127 | 177773 | | ASH | #177773,%1 | ;SHIFT R1 BY 177773 |
| 004316 | 013767 | 177776 | 007420 | MOV | @#PS,PSW | ;SAVE PS |
| 004324 | 122767 | 000000 | 007412 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004332 | 001401 | | | BEQ | +.4 | |
| 004334 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004336 | 022701 | 001000 | | CMP | #1000,%1 | ;IS THE RESULT 1000? |
| 004342 | 001401 | | | BEQ | +.4 | |
| 004344 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 1000 |

;TEST 63 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004346 | 010701 | | | SCOPE | | |
| 004350 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004354 | 072127 | 177774 | | ASH | #177774,%1 | ;SHIFT R1 BY 177774 |
| 004360 | 013767 | 177776 | 007356 | MOV | @#PS,PSW | ;SAVE PS |
| 004366 | 122767 | 000000 | 007350 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004374 | 001401 | | | BEQ | +.4 | |
| 004376 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004400 | 022701 | 002000 | | CMP | #2000,%1 | ;IS THE RESULT 2000? |
| 004404 | 001401 | | | BEQ | +.4 | |
| 004406 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 2000 |

;TEST 64 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004410 | 010701 | | | SCOPE | | |
| 004412 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004416 | 072127 | 177775 | | ASH | #177775,%1 | ;SHIFT R1 BY 177775 |
| 004422 | 013767 | 177776 | 007314 | MOV | 2#PS,PSW | ;SAVE PS |
| 004430 | 122767 | 000000 | 007306 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004436 | 001401 | | | BEQ | +.4 | |
| 004440 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004442 | 022701 | 004000 | | CMP | #4000,%1 | ;IS THE RESULT 4000? |
| 004446 | 001401 | | | BEQ | +.4 | |
| 004450 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 4000 |

;TEST 65 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 004452 | 010701 | | | SCOPE | | |
| 004454 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004460 | 072127 | 177776 | | ASH | #177776,%1 | ;SHIFT R1 BY 177776 |
| 004464 | 013767 | 177776 | 007252 | MOV | 2#PS,PSW | ;SAVE PS |
| 004472 | 122767 | 000000 | 007244 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004500 | 001401 | | | BEQ | +.4 | |
| 004502 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004504 | 022701 | 010000 | | CMP | #10000,%1 | ;IS THE RESULT 10000? |
| 004510 | 001401 | | | BEQ | +.4 | |
| 004512 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 10000 |

;TEST 66 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|--------|------------|---------------------------|
| 004514 | 010701 | | | -SCOPE | | |
| 004516 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004522 | 072127 | 177777 | | ASH | #177777,%1 | ;SHIFT R1 BY 177777 |
| 004526 | 013767 | 177776 | 007210 | MOV | 2#PS,PSW | ;SAVE PS |
| 004534 | 122767 | 000000 | 007202 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004542 | 001401 | | | BEQ | +.4 | |
| 004544 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004546 | 022701 | 020000 | | CMP | #20000,%1 | ;IS THE RESULT 20000? |
| 004552 | 001401 | | | BEQ | +.4 | |
| 004554 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 20000 |

:TEST 67 ASH 40000 SHIFTED BY 0 = 40000 PS = 0
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 004556 | 010701 | | | SCOPE | | |
| 004560 | 012701 | 040000 | | MOV | #40000,%1 | ;LOAD R1 WITH 40000 |
| 004564 | 072127 | 000000 | | ASH | #0,%1 | ;SHIFT R1 BY 0 |
| 004570 | 013767 | 177776 | 007146 | MOV | @#PS,PSW | ;SAVE PS |
| 004576 | 122767 | 000000 | 007140 | CMPB | #0,PSW | ;IS THE PS 0? |
| 004604 | 001401 | | | BEQ | +.4 | |
| 004606 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 004610 | 022701 | 040000 | | CMP | #40000,%1 | ;IS THE RESULT 40000? |
| 004614 | 001401 | | | BEQ | +.4 | |
| 004616 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 40000 |

:TEST 70 ASH 100000 SHIFTED BY -15. = -1 PS = 10
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 004620 | 010701 | | | SCOPE | | |
| 004622 | 012701 | 100000 | | MOV | #100000,%1 | ;LOAD R1 WITH 100000 |
| 004626 | 072127 | 177761 | | ASH | #-15,%1 | ;SHIFT R1 BY -15. |
| 004632 | 013767 | 177776 | 007104 | MOV | @#PS,PSW | ;SAVE PS |
| 004640 | 122767 | 000010 | 007076 | CMPB | #10,PSW | ;IS THE PS 10? |
| 004646 | 001401 | | | BEQ | +.4 | |
| 004650 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 004652 | 022701 | 177777 | | CMP | #-1,%1 | ;IS THE RESULT -1? |
| 004656 | 001401 | | | BEQ | +.4 | |
| 004660 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO -1 |

:TEST 71 ASH -1 SHIFTED BY 15. = 100000 PS = 11
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 004662 | 010701 | | | SCOPE | | |
| 004664 | 012701 | 177777 | | MOV | #-1,%1 | ;LOAD R1 WITH -1 |
| 004670 | 072127 | 000017 | | ASH | #15,%1 | ;SHIFT R1 BY 15. |
| 004674 | 013767 | 177776 | 007042 | MOV | @#PS,PSW | ;SAVE PS |
| 004702 | 122767 | 000011 | 007034 | CMPB | #11,PSW | ;IS THE PS 11? |
| 004710 | 001401 | | | BEQ | +.4 | |
| 004712 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 004714 | 022701 | 100000 | | CMP | #100000,%1 | ;IS THE RESULT 100000? |
| 004720 | 001401 | | | BEQ | +.4 | |
| 004722 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 100000 |

;TEST 72 ASH -1 SHIFTED BY 16. = 0 PS = 7

004724 010701
004726 012701 177777
004732 072127 000020
004736 013767 177776 007000
004744 122767 000007 006772
004752 001401
004754 000000
004756 022701 000000
004762 001401
004764 000000

SCOPE
MOV # -1,%1 ;LOAD R1 WITH -1
ASH #16,%1 ;SHIFT R1 BY 16.
MOV @#PS,PSW ;SAVE PS
CMPB #7,PSW ;IS THE PS 7?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 7
CMP #0,%1 ;IS THE RESULT 0?
BEQ .+4
HLT ;R1 IS NOT EQUAL TO 0

;TEST 73 ASH 137777 SHIFTED BY 15. = 100000 PS = 13

004766 010701
004770 012701 137777
004774 072127 000017
005000 013767 177776 006736
005006 122767 000013 006730
005014 001401
005016 000000
005020 022701 100000
005024 001401
005026 000000

SCOPE
MOV #137777,%1 ;LOAD R1 WITH 137777
ASH #15,%1 ;SHIFT R1 BY 15.
MOV @#PS,PSW ;SAVE PS
CMPB #13,PSW ;IS THE PS 13?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 13
CMP #100000,%1 ;IS THE RESULT 100000?
BEQ .+4
HLT ;R1 IS NOT EQUAL TO 100000

;TEST 74 ASH 125252 SHIFTED BY 1 = 52524 PS = 3

005030 010701
005032 012701 125252
005036 072127 000001
005042 013767 177776 006674
005050 122767 000003 006666
005056 001401
005060 000000
005062 022701 052524
005066 001401
005070 000000

SCOPE
MOV #125252,%1 ;LOAD R1 WITH 125252
ASH #1,%1 ;SHIFT R1 BY 1
MOV @#PS,PSW ;SAVE PS
CMPB #3,PSW ;IS THE PS 3?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 3
CMP #52524,%1 ;IS THE RESULT 52524?
BEQ .+4
HLT ;R1 IS NOT EQUAL TO 52524

;TEST 75 ASH 125252 SHIFTED BY -1 = 152525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 005072 | 010701 | | | SCOPE | | |
| 005074 | 012701 | 125252 | | MOV | #125252,%1 | ;LOAD R1 WITH 125252 |
| 005100 | 072127 | 177777 | | ASH | #-1,%1 | ;SHIFT R1 BY -1 |
| 005104 | 013767 | 177776 | 006632 | MOV | 2#PS,PSW | ;SAVE PS |
| 005112 | 122767 | 000010 | 006624 | CMPB | #10,PSW | ;IS THE PS 10? |
| 005120 | 001401 | | | BEQ | +.4 | |
| 005122 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 005124 | 022701 | 152525 | | CMP | #152525,%1 | ;IS THE RESULT 152525? |
| 005130 | 001401 | | | BEQ | +.4 | |
| 005132 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 152525 |

;TEST 76 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 005134 | 010701 | | | SCOPE | | |
| 005136 | 012701 | 125252 | | MOV | #125252,%1 | ;LOAD R1 WITH 125252 |
| 005142 | 072127 | 177776 | | ASH | #-2,%1 | ;SHIFT R1 BY -2 |
| 005146 | 013767 | 177776 | 006570 | MOV | 2#PS,PSW | ;SAVE PS |
| 005154 | 122767 | 000011 | 006562 | CMPB | #11,PSW | ;IS THE PS 11? |
| 005162 | 001401 | | | BEQ | +.4 | |
| 005164 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 005166 | 022701 | 165252 | | CMP | #165252,%1 | ;IS THE RESULT 165252? |
| 005172 | 001401 | | | BEQ | +.4 | |
| 005174 | 000000 | | | HLT | | ;R1 IS NOT EQUAL TO 165252 |

;TEST 77 ASH 40000 SHIFTED BY 177762 = 1 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005176 | 010701 | | | SCOPE | | |
| 005200 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005204 | 072227 | 177762 | | ASH | #177762,%2 | ;SHIFT R2 BY 177762 |
| 005210 | 013767 | 177776 | 006526 | MOV | 2#PS,PSW | ;SAVE PS |
| 005216 | 122767 | 000000 | 006520 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005224 | 001401 | | | BEQ | +.4 | |
| 005226 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005230 | 022702 | 000001 | | CMP | #1,%2 | ;IS THE RESULT 1? |
| 005234 | 001401 | | | BEQ | +.4 | |
| 005236 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 1 |

;TEST 100 ASH 40000 SHIFTED BY 177763 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005240 | 010701 | | | SCOPE | | |
| 005242 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005246 | 072227 | 177763 | | ASH | #177763,%2 | ;SHIFT R2 BY 177763 |
| 005252 | 013767 | 177776 | 006464 | MOV | @#PS,PSW | ;SAVE PS |
| 005260 | 122767 | 000000 | 006456 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005266 | 001401 | | | BEQ | +.4 | |
| 005270 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005272 | 022702 | 000002 | | CMP | #2,%2 | ;IS THE RESULT 2? |
| 005276 | 001401 | | | BEQ | +.4 | |
| 005300 | 000C00 | | | HLT | | ;R2 IS NOT EQUAL TO 2 |

;TEST 101 ASH 40000 SHIFTED BY 177764 = 4 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005302 | 010701 | | | SCOPE | | |
| 005304 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005310 | 072227 | 177764 | | ASH | #177764,%2 | ;SHIFT R2 BY 177764 |
| 005314 | 013767 | 177776 | 006422 | MOV | @#PS,PSW | ;SAVE PS |
| 005322 | 122767 | 000000 | 006414 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005330 | 001401 | | | BEQ | +.4 | |
| 005332 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005334 | 022702 | 000004 | | CMP | #4,%2 | ;IS THE RESULT 4? |
| 005340 | 001401 | | | BEQ | +.4 | |
| 005342 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 4 |

;TEST 102 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005344 | 010701 | | | SCOPE | | |
| 005346 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005352 | 072227 | 177765 | | ASH | #177765,%2 | ;SHIFT R2 BY 177765 |
| 005356 | 013767 | 177776 | 006360 | MOV | @#PS,PSW | ;SAVE PS |
| 005364 | 122767 | 000000 | 006352 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005372 | 001401 | | | BEQ | +.4 | |
| 005374 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005376 | 022702 | 000010 | | CMP | #10,%2 | ;IS THE RESULT 10? |
| 005402 | 001401 | | | BEQ | +.4 | |
| 005404 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 10 |

:TEST 103 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005406 | 010701 | | | SCOPE | | |
| 005410 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005414 | 072227 | 177766 | | ASH | #177766,%2 | ;SHIFT R2 BY 177766 |
| 005420 | 013767 | 177776 | 006316 | MOV | 2#PS,PSW | ;SAVE PS |
| 005426 | 122767 | 000000 | 006310 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005434 | 001401 | | | BEQ | +.4 | |
| 005436 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005440 | 022702 | 000020 | | CMP | #20,%2 | ;IS THE RESULT 20? |
| 005444 | 001401 | | | BEQ | +.4 | |
| 005446 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 20 |

:TEST 104 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005450 | 010701 | | | SCOPE | | |
| 005452 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005456 | 072227 | 177767 | | ASH | #177767,%2 | ;SHIFT R2 BY 177767 |
| 005462 | 013767 | 177776 | 006254 | MOV | 2#PS,PSW | ;SAVE PS |
| 005470 | 122767 | 000000 | 006246 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005476 | 001401 | | | BEQ | +.4 | |
| 005500 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005502 | 022702 | 000040 | | CMP | #40,%2 | ;IS THE RESULT 40? |
| 005506 | 001401 | | | BEQ | +.4 | |
| 005510 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 40 |

:TEST 105 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005512 | 010701 | | | SCOPE | | |
| 005514 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005520 | 072227 | 177770 | | ASH | #177770,%2 | ;SHIFT R2 BY 177770 |
| 005524 | 013767 | 177776 | 006212 | MOV | 2#PS,PSW | ;SAVE PS |
| 005532 | 122767 | 000000 | 006204 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005540 | 001401 | | | BEQ | +.4 | |
| 005542 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005544 | 022702 | 000100 | | CMP | #100,%2 | ;IS THE RESULT 100? |
| 005550 | 001401 | | | BEQ | +.4 | |
| 005552 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 100 |

:TEST 106 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005554 | 010701 | | | SCOPE | | |
| 005556 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005562 | 072227 | 177771 | | ASH | #177771,%2 | ;SHIFT R2 BY 177771 |
| 005566 | 013767 | 177776 | 006150 | MOV | 2#PS,PSW | ;SAVE PS |
| 005574 | 122767 | 000000 | 006142 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005602 | 001401 | | | BEQ | +.4 | |
| 005604 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005606 | 022702 | 000200 | | CMP | #200,%2 | ;IS THE RESULT 200? |
| 005612 | 001401 | | | BEQ | +.4 | |
| 005614 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 200 |

:TEST 107 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005616 | 010701 | | | SCOPE | | |
| 005620 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005624 | 072227 | 177772 | | ASH | #177772,%2 | ;SHIFT R2 BY 177772 |
| 005630 | 013767 | 177776 | 006106 | MOV | 2#PS,PSW | ;SAVE PS |
| 005636 | 122767 | 000000 | 006100 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005644 | 001401 | | | BEQ | +.4 | |
| 005646 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005650 | 022702 | 000400 | | CMP | #400,%2 | ;IS THE RESULT 400? |
| 005654 | 001401 | | | BEQ | +.4 | |
| 005656 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 400 |

:TEST 110 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005660 | 010701 | | | SCOPE | | |
| 005662 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 005666 | 072227 | 177773 | | ASH | #177773,%2 | ;SHIFT R2 BY 177773 |
| 005672 | 013767 | 177776 | 006044 | MOV | 2#PS,PSW | ;SAVE PS |
| 005700 | 122767 | 000000 | 006036 | CMPB | #0,PSW | ;IS THE PS 0? |
| 005706 | 001401 | | | BEQ | +.4 | |
| 005710 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 005712 | 022702 | 001000 | | CMP | #1000,%2 | ;IS THE RESULT 1000? |
| 005716 | 001401 | | | BEQ | +.4 | |
| 005720 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 1000 |

:TEST 111 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005722 | 010701 | | | SCOPE | | |
| 005724 | 012702 | 040000 | | MOV | #40000,%2 | :LOAD R2 WITH 40000 |
| 005730 | 072227 | 177774 | | ASH | #177774,%2 | :SHIFT R2 BY 177774 |
| 005734 | 013767 | 177776 | 006002 | MOV | @PS,PSW | :SAVE PS |
| 005742 | 122767 | 000000 | 005774 | CMPB | #0,PSW | :IS THE PS 0? |
| 005750 | 001401 | | | BEQ | +.4 | |
| 005752 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 005754 | 022702 | 002000 | | CMP | #2000,%2 | :IS THE RESULT 2000? |
| 005760 | 001401 | | | BEQ | +.4 | |
| 005762 | 000000 | | | HLT | | :R2 IS NOT EQUAL TO 2000 |

:TEST 112 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 005764 | 010701 | | | SCOPE | | |
| 005766 | 012702 | 040000 | | MOV | #40000,%2 | :LOAD R2 WITH 40000 |
| 005772 | 072227 | 177775 | | ASH | #177775,%2 | :SHIFT R2 BY 177775 |
| 005776 | 013767 | 177776 | 005740 | MOV | @PS,PSW | :SAVE PS |
| 006004 | 122767 | 000000 | 005732 | CMPB | #0,PSW | :IS THE PS 0? |
| 006012 | 001401 | | | BEQ | +.4 | |
| 006014 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 006016 | 022702 | 004000 | | CMP | #4000,%2 | :IS THE RESULT 4000? |
| 006022 | 001401 | | | BEQ | +.4 | |
| 006024 | 000000 | | | HLT | | :R2 IS NOT EQUAL TO 4000 |

:TEST 113 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006026 | 010701 | | | SCOPE | | |
| 006030 | 012702 | 040000 | | MOV | #40000,%2 | :LOAD R2 WITH 40000 |
| 006034 | 072227 | 177776 | | ASH | #177776,%2 | :SHIFT R2 BY 177776 |
| 006040 | 013767 | 177776 | 005676 | MOV | @PS,PSW | :SAVE PS |
| 006046 | 122767 | 000000 | 005670 | CMPB | #0,PSW | :IS THE PS 0? |
| 006054 | 001401 | | | BEQ | +.4 | |
| 006056 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 006060 | 022702 | 010000 | | CMP | #10000,%2 | :IS THE RESULT 10000? |
| 006064 | 001401 | | | BEQ | +.4 | |
| 006066 | 000000 | | | HLT | | :R2 IS NOT EQUAL TO 10000 |

E03

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;TEST 114 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006070 | 010701 | | | SCOPE | | |
| 006072 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 006076 | 072227 | 177777 | | ASH | #177777,%2 | ;SHIFT R2 BY 177777 |
| 006102 | 013767 | 177776 | 005634 | MOV | 2#PS,PSW | ;SAVE PS |
| 006110 | 122767 | 000000 | 005626 | CMPB | #0,PSW | ;IS THE PS 0? |
| 006116 | 001401 | | | BEQ | +.4 | |
| 006120 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 006122 | 022702 | 020000 | | CMP | #20000,%2 | ;IS THE RESULT 20000? |
| 006126 | 001401 | | | BEQ | +.4 | |
| 006130 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 20000 |

;TEST 115 ASH 40000 SHIFTED BY 0 = 40000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 006132 | 010701 | | | SCOPE | | |
| 006134 | 012702 | 040000 | | MOV | #40000,%2 | ;LOAD R2 WITH 40000 |
| 006140 | 072227 | 000000 | | ASH | #0,%2 | ;SHIFT R2 BY 0 |
| 006144 | 013767 | 177776 | 005572 | MOV | 2#PS,PSW | ;SAVE PS |
| 006152 | 122767 | 000000 | 005564 | CMPB | #0,PSW | ;IS THE PS 0? |
| 006160 | 001401 | | | BEQ | +.4 | |
| 006162 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 006164 | 022702 | 040000 | | CMP | #40000,%2 | ;IS THE RESULT 40000? |
| 006170 | 001401 | | | BEQ | +.4 | |
| 006172 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 40000 |

;TEST 116 ASH 100000 SHIFTED BY -15. = -1 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 006174 | 010701 | | | SCOPE | | |
| 006176 | 012702 | 100000 | | MOV | #100000,%2 | ;LOAD R2 WITH 100000 |
| 006202 | 072227 | 177761 | | ASH | #-15,%2 | ;SHIFT R2 BY -15. |
| 006206 | 013767 | 177776 | 005530 | MOV | 2#PS,PSW | ;SAVE PS |
| 006214 | 122767 | 000010 | 005522 | CMPB | #10,PSW | ;IS THE PS,10? |
| 006222 | 001401 | | | BEQ | +.4 | |
| 006224 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 006226 | 022702 | 177777 | | CMP | #-1,%2 | ;IS THE RESULT -1? |
| 006232 | 001401 | | | BEQ | +.4 | |
| 006234 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO -1 |

:TEST 117 ASH -1 SHIFTED BY 15. = 100000 PS = 11
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 006236 | 010701 | | | SCOPE | | |
| 006240 | 012702 | 177777 | | MOV | #-1,%2 | ;LOAD R2 WITH -1 |
| 006244 | 072227 | 000017 | | ASH | #15,%2 | ;SHIFT R2 BY 15. |
| 006250 | 013767 | 177776 | 005466 | MOV | @#PS,PSW | ;SAVE PS |
| 006256 | 122767 | 000011 | 005460 | CMPB | #11,PSW | ;IS THE PS 11? |
| 006264 | 001401 | | | BEQ | +.4 | |
| 006266 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 006270 | 022702 | 100000 | | CMP | #100000,%2 | ;IS THE RESULT 100000? |
| 006274 | 001401 | | | BEQ | +.4 | |
| 006276 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 100000 |

:TEST 120 ASH -1 SHIFTED BY 16. = 0 PS = 7
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 006300 | 010701 | | | SCOPE | | |
| 006302 | 012702 | 177777 | | MOV | #-1,%2 | ;LOAD R2 WITH -1 |
| 006306 | 072227 | 000020 | | ASH | #16,%2 | ;SHIFT R2 BY 16. |
| 006312 | 013767 | 177776 | 005424 | MOV | @#PS,PSW | ;SAVE PS |
| 006320 | 122767 | 000007 | 005416 | CMPB | #7,PSW | ;IS THE PS 7? |
| 006326 | 001401 | | | BEQ | +.4 | |
| 006330 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 7 |
| 006332 | 022702 | 000000 | | CMP | #0,%2 | ;IS THE RESULT 0? |
| 006336 | 001401 | | | BEQ | +.4 | |
| 006340 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 0 |

:TEST 121 ASH 137777 SHIFTED BY 15. = 100000 PS = 13
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 006342 | 010701 | | | SCOPE | | |
| 006344 | 012702 | 137777 | | MOV | #137777,%2 | ;LOAD R2 WITH 137777 |
| 006350 | 072227 | 000017 | | ASH | #15,%2 | ;SHIFT R2 BY 15. |
| 006354 | 013767 | 177776 | 005362 | MOV | @#PS,PSW | ;SAVE PS |
| 006362 | 122767 | 000013 | 005354 | CMPB | #13,PSW | ;IS THE PS 13? |
| 006370 | 001401 | | | BEQ | +.4 | |
| 006372 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 13 |
| 006374 | 022702 | 100000 | | CMP | #100000,%2 | ;IS THE RESULT 100000? |
| 006400 | 001401 | | | BEQ | +.4 | |
| 006402 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 100000 |

;TEST 122 ASH 125252 SHIFTED BY 1 = 52524 PS = 3

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006404 | 010701 | | | SCOPE | | |
| 006406 | 012702 | 125252 | | MOV | #125252,%2 | ;LOAD R2 WITH 125252 |
| 006412 | 072227 | 000001 | | ASH | #1,%2 | ;SHIFT R2 BY 1 |
| 006416 | 013767 | 177776 | 005320 | MOV | 2#PS,PSW | ;SAVE PS |
| 006424 | 122767 | 000003 | 005312 | CMPB | #3,PSW | ;IS THE PS 3? |
| 006432 | 001401 | | | BEQ | +.4 | |
| 006434 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 3 |
| 006436 | 022702 | 052524 | | CMP | #52524,%2 | ;IS THE RESULT 52524? |
| 006442 | 001401 | | | BEQ | +.4 | |
| 006444 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 52524 |

;TEST 123 ASH 125252 SHIFTED BY -1 = 152525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 006446 | 010701 | | | SCOPE | | |
| 006450 | 012702 | 125252 | | MOV | #125252,%2 | ;LOAD R2 WITH 125252 |
| 006454 | 072227 | 177777 | | ASH | #-1,%2 | ;SHIFT R2 BY -1 |
| 006460 | 013767 | 177776 | 005256 | MOV | 2#PS,PSW | ;SAVE PS |
| 006466 | 122767 | 000010 | 005250 | CMPB | #10,PSW | ;IS THE PS 10? |
| 006474 | 001401 | | | BEQ | +.4 | |
| 006476 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 006500 | 022702 | 152525 | | CMP | #152525,%2 | ;IS THE RESULT 152525? |
| 006504 | 001401 | | | BEQ | +.4 | |
| 006506 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 152525 |

;TEST 124 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 006510 | 010701 | | | SCOPE | | |
| 006512 | 012702 | 125252 | | MOV | #125252,%2 | ;LOAD R2 WITH 125252 |
| 006516 | 072227 | 177776 | | ASH | #-2,%2 | ;SHIFT R2 BY -2 |
| 006522 | 013767 | 177776 | 005214 | MOV | 2#PS,PSW | ;SAVE PS |
| 006530 | 122767 | 000011 | 005206 | CMPB | #11,PSW | ;IS THE PS 11? |
| 006536 | 001401 | | | BEQ | +.4 | |
| 006540 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 006542 | 022702 | 165252 | | CMP | #165252,%2 | ;IS THE RESULT 165252? |
| 006546 | 001401 | | | BEQ | +.4 | |
| 006550 | 000000 | | | HLT | | ;R2 IS NOT EQUAL TO 165252 |

H03

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```
*****  
;TEST 125 ASH 40000 SHIFTED BY 177762 = 1 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006552 | 010701 | | | SCOPE | | |
| 006554 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 006560 | 072327 | 177762 | | ASH | #177762,%3 | ;SHIFT R3 BY 177762 |
| 006564 | 013767 | 177776 | 005152 | MOV | 2#PS,PSW | ;SAVE PS |
| 006572 | 122767 | 000000 | 005144 | CMPB | #0,PSW | ;IS THE PS 0? |
| 006600 | 001401 | | | BEQ | +.4 | |
| 006602 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 006604 | 022703 | 000001 | | CMP | #1,%3 | ;IS THE RESULT 1? |
| 006610 | 001401 | | | BEQ | +.4 | |
| 006612 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 1 |

```
*****  
;TEST 126 ASH 40000 SHIFTED BY 177763 = 2 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006614 | 010701 | | | SCOPE | | |
| 006616 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 006622 | 072327 | 177763 | | ASH | #177763,%3 | ;SHIFT R3 BY 177763 |
| 006626 | 013767 | 177776 | 005110 | MOV | 2#PS,PSW | ;SAVE PS |
| 006634 | 122767 | 000000 | 005102 | CMPB | #0,PSW | ;IS THE PS 0? |
| 006642 | 001401 | | | BEQ | +.4 | |
| 006644 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 006646 | 022703 | 000002 | | CMP | #2,%3 | ;IS THE RESULT 2? |
| 006652 | 001401 | | | BEQ | +.4 | |
| 006654 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 2 |

```
*****  
;TEST 127 ASH 40000 SHIFTED BY 177764 = 4 PS = 0  
*****
```

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 006656 | 010701 | | | SCOPE | | |
| 006660 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 006664 | 072327 | 177764 | | ASH | #177764,%3 | ;SHIFT R3 BY 177764 |
| 006670 | 013767 | 177776 | 005046 | MOV | 2#PS,PSW | ;SAVE PS |
| 006676 | 122767 | 000000 | 005040 | CMPB | #0,PSW | ;IS THE PS 0? |
| 006704 | 001401 | | | BEQ | +.4 | |
| 006706 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 006710 | 022703 | 000004 | | CMP | #4,%3 | ;IS THE RESULT 4? |
| 006714 | 001401 | | | BEQ | +.4 | |
| 006716 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 4 |

:TEST 130 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

| | | | | | |
|--------|--------|--------|--------|-------|--------------------------------|
| 006720 | 010701 | | | SCOPE | |
| 006722 | 012703 | 040000 | | MOV | #40000,%3 ;LOAD R3 WITH 40000 |
| 006726 | 072327 | 177765 | | ASH | #177765,%3 ;SHIFT R3 BY 177765 |
| 006732 | 013767 | 177776 | 005004 | MOV | 2#PS,PSW ;SAVE PS |
| 006740 | 122767 | 000000 | 004776 | CMPB | #0,PSW ;IS THE PS 0? |
| 006746 | 001401 | | | BEQ | +.4 |
| 006750 | 000000 | | | HLT | ;THE PS IS NOT EQUAL TO 0 |
| 006752 | 022703 | 000010 | | CMP | #10,%3 ;IS THE RESULT 10? |
| 006756 | 001401 | | | BEQ | +.4 |
| 006760 | 000000 | | | HLT | ;R3 IS NOT EQUAL TO 10 |

:TEST 131 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

| | | | | | |
|--------|--------|--------|--------|-------|--------------------------------|
| 006762 | 010701 | | | SCOPE | |
| 006764 | 012703 | 040000 | | MOV | #40000,%3 ;LOAD R3 WITH 40000 |
| 006770 | 072327 | 177766 | | ASH | #177766,%3 ;SHIFT R3 BY 177766 |
| 006774 | 013767 | 177776 | 004742 | MOV | 2#PS,PSW ;SAVE PS |
| 007002 | 122767 | 000000 | 004734 | CMPB | #0,PSW ;IS THE PS 0? |
| 007010 | 001401 | | | BEQ | +.4 |
| 007012 | 000000 | | | HLT | ;THE PS IS NOT EQUAL TO 0 |
| 007014 | 022703 | 000020 | | CMP | #20,%3 ;IS THE RESULT 20? |
| 007020 | 001401 | | | BEQ | +.4 |
| 007022 | 000000 | | | HLT | ;R3 IS NOT EQUAL TO 20 |

:TEST 132 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

| | | | | | |
|--------|--------|--------|--------|-------|--------------------------------|
| 007024 | 010701 | | | SCOPE | |
| 007026 | 012703 | 040000 | | MOV | #40000,%3 ;LOAD R3 WITH 40000 |
| 007032 | 072327 | 177767 | | ASH | #177767,%3 ;SHIFT R3 BY 177767 |
| 007036 | 013767 | 177776 | 004700 | MOV | 2#PS,PSW ;SAVE PS |
| 007044 | 122767 | 000000 | 004672 | CMPB | #0,PSW ;IS THE PS 0? |
| 007052 | 001401 | | | BEQ | +.4 |
| 007054 | 000000 | | | HLT | ;THE PS IS NOT EQUAL TO 0 |
| 007056 | 022703 | 000040 | | CMP | #40,%3 ;IS THE RESULT 40? |
| 007062 | 001401 | | | BEQ | +.4 |
| 007064 | 000000 | | | HLT | ;R3 IS NOT EQUAL TO 40 |

;TEST 133 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007066 | 010701 | | | SCOPE | | |
| 007070 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007074 | 072327 | 177770 | | ASH | #177770,%3 | ;SHIFT R3 BY 177770 |
| 007100 | 013767 | 177776 | 004636 | MOV | 2#PS,PSW | ;SAVE PS |
| 007106 | 122767 | 000000 | 004630 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007114 | 001401 | | | BEQ | +.4 | |
| 007116 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007120 | 022703 | 000100 | | CMP | #100,%3 | ;IS THE RESULT 100? |
| 007124 | 001401 | | | BEQ | +.4 | |
| 007126 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 100 |

;TEST 134 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007130 | 010701 | | | SCOPE | | |
| 007132 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007136 | 072327 | 177771 | | ASH | #177771,%3 | ;SHIFT R3 BY 177771 |
| 007142 | 013767 | 177776 | 004574 | MOV | 2#PS,PSW | ;SAVE PS |
| 007150 | 122767 | 000000 | 004566 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007156 | 001401 | | | BEQ | +.4 | |
| 007160 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007162 | 022703 | 000200 | | CMP | #200,%3 | ;IS THE RESULT 200? |
| 007166 | 001401 | | | BEQ | +.4 | |
| 007170 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 200 |

;TEST 135 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007172 | 010701 | | | SCOPE | | |
| 007174 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007200 | 072327 | 177772 | | ASH | #177772,%3 | ;SHIFT R3 BY 177772 |
| 007204 | 013767 | 177776 | 004532 | MOV | 2#PS,PSW | ;SAVE PS |
| 007212 | 122767 | 000000 | 004524 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007220 | 001401 | | | BEQ | +.4 | |
| 007222 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007224 | 022703 | 000400 | | CMP | #400,%3 | ;IS THE RESULT 400? |
| 007230 | 001401 | | | BEQ | +.4 | |
| 007232 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 400 |

K03

;TEST 136 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007234 | 010701 | | | SCOPE | | |
| 007236 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007242 | 072327 | 177773 | | ASH | #177773,%3 | ;SHIFT R3 BY 177773 |
| 007246 | 013767 | 177776 | 004470 | MOV | 2#PS,PSW | ;SAVE PS |
| 007254 | 122767 | 000000 | 004462 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007262 | 001401 | | | BEQ | +.4 | |
| 007264 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007266 | 022703 | 001000 | | CMP | #1000,%3 | ;IS THE RESULT 1000? |
| 007272 | 001401 | | | BEQ | +.4 | |
| 007274 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 1000 |

;TEST 137 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007276 | 010701 | | | SCOPE | | |
| 007300 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007304 | 072327 | 177774 | | ASH | #177774,%3 | ;SHIFT R3 BY 177774 |
| 007310 | 013767 | 177776 | 004426 | MOV | 2#PS,PSW | ;SAVE PS |
| 007316 | 122767 | 000000 | 004420 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007324 | 001401 | | | BEQ | +.4 | |
| 007326 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007330 | 022703 | 002000 | | CMP | #2000,%3 | ;IS THE RESULT 2000? |
| 007334 | 001401 | | | BEQ | +.4 | |
| 007336 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 2000 |

;TEST 140 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007340 | 010701 | | | SCOPE | | |
| 007342 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007346 | 072327 | 177775 | | ASH | #177775,%3 | ;SHIFT R3 BY 177775 |
| 007352 | 013767 | 177776 | 004364 | MOV | 2#PS,PSW | ;SAVE PS |
| 007360 | 122767 | 000000 | 004356 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007366 | 001401 | | | BEQ | +.4 | |
| 007370 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007372 | 022703 | 004000 | | CMP | #4000,%3 | ;IS THE RESULT 4000? |
| 007376 | 001401 | | | BEQ | +.4 | |
| 007400 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 4000 |

:TEST 141 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007402 | 010701 | | | SCOPE | | |
| 007404 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007410 | 072327 | 177776 | | ASH | #177776,%3 | ;SHIFT R3 BY 177776 |
| 007414 | 013767 | 177776 | 004322 | MOV | 2#PS,PSW | ;SAVE PS |
| 007422 | 122767 | 000000 | 004314 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007430 | 001401 | | | BEQ | +.4 | |
| 007432 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007434 | 022703 | 010000 | | CMP | #10000,%3 | ;IS THE RESULT 10000? |
| 007440 | 001401 | | | BEQ | +.4 | |
| 007442 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 10000 |

:TEST 142 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007444 | 010701 | | | SCOPE | | |
| 007446 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007452 | 072327 | 177777 | | ASH | #177777,%3 | ;SHIFT R3 BY 177777 |
| 007456 | 013767 | 177776 | 004260 | MOV | 2#PS,PSW | ;SAVE PS |
| 007464 | 122767 | 000000 | 004252 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007472 | 001401 | | | BEQ | +.4 | |
| 007474 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007476 | 022703 | 020000 | | CMP | #20000,%3 | ;IS THE RESULT 20000? |
| 007502 | 001401 | | | BEQ | +.4 | |
| 007504 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 20000 |

:TEST 143 ASH 40000 SHIFTED BY 0 = 40000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 007506 | 010701 | | | SCOPE | | |
| 007510 | 012703 | 040000 | | MOV | #40000,%3 | ;LOAD R3 WITH 40000 |
| 007514 | 072327 | 000000 | | ASH | #0,%3 | ;SHIFT R3 BY 0 |
| 007520 | 013767 | 177776 | 004216 | MOV | 2#PS,PSW | ;SAVE PS |
| 007526 | 122767 | 000000 | 004210 | CMPB | #0,PSW | ;IS THE PS 0? |
| 007534 | 001401 | | | BEQ | +.4 | |
| 007536 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 007540 | 022703 | 040000 | | CMP | #40000,%3 | ;IS THE RESULT 40000? |
| 007544 | 001401 | | | BEQ | +.4 | |
| 007546 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 40000 |

;TEST 144 ASH 100000 SHIFTED BY -15. = -1 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 007550 | 010701 | | | SCOPE | | |
| 007552 | 012703 | 100000 | | MOV | #100000,%3 | ;LOAD R3 WITH 100000 |
| 007556 | 072327 | 177761 | | ASH | #-15,%3 | ;SHIFT R3 BY -15. |
| 007562 | 013767 | 177776 | 004154 | MOV | @#PS,PSW | ;SAVE PS |
| 007570 | 122767 | 000010 | 004146 | CMPB | #10,PSW | ;IS THE PS 10? |
| 007576 | 001401 | | | BEQ | .+4 | |
| 007600 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 007602 | 022703 | 177777 | | CMP | #-1,%3 | ;IS THE RESULT -1? |
| 007606 | 001401 | | | BEQ | .+4 | |
| 007610 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO -1 |

;TEST 145 ASH -1 SHIFTED BY 15. = 100000 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 007612 | 010701 | | | SCOPE | | |
| 007614 | 012703 | 177777 | | MOV | #-1,%3 | ;LOAD R3 WITH -1 |
| 007620 | 072327 | 000017 | | ASH | #15,%3 | ;SHIFT R3 BY 15. |
| 007624 | 013767 | 177776 | 004112 | MOV | @#PS,PSW | ;SAVE PS |
| 007632 | 122767 | 000011 | 004104 | CMPB | #11,PSW | ;IS THE PS 11? |
| 007640 | 001401 | | | BEQ | .+4 | |
| 007642 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 007644 | 022703 | 100000 | | CMP | #100000,%3 | ;IS THE RESULT 100000? |
| 007650 | 001401 | | | BEQ | .+4 | |
| 007652 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 100000 |

;TEST 146 ASH -1 SHIFTED BY 16. = 0 PS = 7

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 007654 | 010701 | | | SCOPE | | |
| 007656 | 012703 | 177777 | | MOV | #-1,%3 | ;LOAD R3 WITH -1 |
| 007662 | 072327 | 000020 | | ASH | #16,%3 | ;SHIFT R3 BY 16. |
| 007666 | 013767 | 177776 | 004050 | MOV | @#PS,PSW | ;SAVE PS |
| 007674 | 122767 | 000007 | 004042 | CMPB | #7,PSW | ;IS THE PS 7? |
| 007702 | 001401 | | | BEQ | .+4 | |
| 007704 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 7 |
| 007706 | 022703 | 000000 | | CMP | #0,%3 | ;IS THE RESULT 0? |
| 007712 | 001401 | | | BEQ | .+4 | |
| 007714 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 0 |

N03

;TEST 147 ASH 137777 SHIFTED BY 15. = 100000 PS = 13

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 007716 | 010701 | | | SCOPE | | |
| 007720 | 012703 | 137777 | | MOV | #137777,%3 | ;LOAD R3 WITH 137777 |
| 007724 | 072327 | 000017 | | ASH | #15,%3 | ;SHIFT R3 BY 15. |
| 007730 | 013767 | 177776 | 004006 | MOV | @#PS,PSW | ;SAVE PS |
| 007736 | 122767 | 000013 | 004000 | CMPB | #13,PSW | ;IS THE PS 13? |
| 007744 | 001401 | | | BEQ | +.4 | |
| 007746 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 13 |
| 007750 | 022703 | 100000 | | CMP | #100000,%3 | ;IS THE RESULT 100000? |
| 007754 | 001401 | | | BEQ | +.4 | |
| 007756 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 100000 |

;TEST 150 ASH 125252 SHIFTED BY 1 = 52524 PS = 3

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 007760 | 010701 | | | SCOPE | | |
| 007762 | 012703 | 125252 | | MOV | #125252,%3 | ;LOAD R3 WITH 125252 |
| 007766 | 072327 | 000001 | | ASH | #1,%3 | ;SHIFT R3 BY 1 |
| 007772 | 013767 | 177776 | 003744 | MOV | @#PS,PSW | ;SAVE PS |
| 010000 | 122767 | 000003 | 003736 | CMPB | #3,PSW | ;IS THE PS 3? |
| 010006 | 001401 | | | BEQ | +.4 | |
| 010010 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 3 |
| 010012 | 022703 | 052524 | | CMP | #52524,%3 | ;IS THE RESULT 52524? |
| 010016 | 001401 | | | BEQ | +.4 | |
| 010020 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 52524 |

;TEST 151 ASH 125252 SHIFTED BY -1 = 152525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 010022 | 010701 | | | SCOPE | | |
| 010024 | 012703 | 125252 | | MOV | #125252,%3 | ;LOAD R3 WITH 125252 |
| 010030 | 072327 | 177777 | | ASH | #-1,%3 | ;SHIFT R3 BY -1 |
| 010034 | 013767 | 177776 | 003702 | MOV | @#PS,PSW | ;SAVE PS |
| 010042 | 122767 | 000010 | 003674 | CMPB | #10,PSW | ;IS THE PS 10? |
| 010050 | 001401 | | | BEQ | +.4 | |
| 010052 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 010054 | 022703 | 152525 | | CMP | #152525,%3 | ;IS THE RESULT 152525? |
| 010060 | 001401 | | | BEQ | +.4 | |
| 010062 | 000000 | | | HLT | | ;R3 IS NOT EQUAL TO 152525 |

:TEST 152 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 010064 | 010701 | | | SCOPE | | |
| 010066 | 012703 | 125252 | | MOV | #125252,%3 | :LOAD R3 WITH 125252 |
| 010072 | 072327 | 177776 | | ASH | #-2,%3 | :SHIFT R3 BY -2 |
| 010076 | 013767 | 177776 | 003640 | MOV | 2#PS,PSW | :SAVE PS |
| 010104 | 122767 | 000011 | 003632 | CMPB | #11,PSW | :IS THE PS 11? |
| 010112 | 001401 | | | BEQ | +.4 | |
| 010114 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 11 |
| 010116 | 022703 | 165252 | | CMP | #165252,%3 | :IS THE RESULT 165252? |
| 010122 | 001401 | | | BEQ | +.4 | |
| 010124 | 000000 | | | HLT | | :R3 IS NOT EQUAL TO 165252 |

:TEST 153 ASH 40000 SHIFTED BY 177762 = 1 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010126 | 010701 | | | SCOPE | | |
| 010130 | 012704 | 040000 | | MOV | #40000,%4 | :LOAD R4 WITH 40000 |
| 010134 | 072427 | 177762 | | ASH | #177762,%4 | :SHIFT R4 BY 177762 |
| 010140 | 013767 | 177776 | 003576 | MOV | 2#PS,PSW | :SAVE PS |
| 010146 | 122767 | 000000 | 003570 | CMPB | #0,PSW | :IS THE PS 0? |
| 010154 | 001401 | | | BEQ | +.4 | |
| 010156 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 010160 | 022704 | 000001 | | CMP | #1,%4 | :IS THE RESULT 1? |
| 010164 | 001401 | | | BEQ | +.4 | |
| 010166 | 000000 | | | HLT | | :R4 IS NOT EQUAL TO 1 |

:TEST 154 ASH 40000 SHIFTED BY 177763 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010170 | 010701 | | | SCOPE | | |
| 010172 | 012704 | 040000 | | MOV | #40000,%4 | :LOAD R4 WITH 40000 |
| 010176 | 072427 | 177763 | | ASH | #177763,%4 | :SHIFT R4 BY 177763 |
| 010202 | 013767 | 177776 | 003534 | MOV | 2#PS,PSW | :SAVE PS |
| 010210 | 122767 | 000000 | 003526 | CMPB | #0,PSW | :IS THE PS 0? |
| 010216 | 001401 | | | BEQ | +.4 | |
| 010220 | 000000 | | | HLT | | :THE PS IS NOT EQUAL TO 0 |
| 010222 | 022704 | 000002 | | CMP | #2,%4 | :IS THE RESULT 2? |
| 010226 | 001401 | | | BEQ | +.4 | |
| 010230 | 000000 | | | HLT | | :R4 IS NOT EQUAL TO 2 |

:TEST 155 ASH 40000 SHIFTED BY 177764 = 4 PS = 0

010232 010701
010234 012704 040000
010240 072427 177764
010244 013767 177776 003472
010252 122767 000000 003464
010260 001401
010262 000000
010264 022704 000004
010270 001401
010272 000000

SCOPE
MOV #40000,%4 ;LOAD R4 WITH 40000
ASH #177764,%4 ;SHIFT R4 BY 177764
MOV @PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #4,%4 ;IS THE RESULT 4?
BEQ .+4
HLT ;R4 IS NOT EQUAL TO 4

:TEST 156 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

010274 010701
010276 012704 040000
010302 072427 177765
010306 013767 177776 003430
010314 122767 000000 003422
010322 001401
010324 000000
010326 022704 000010
010332 001401
010334 000000

SCOPE
MOV #40000,%4 ;LOAD R4 WITH 40000
ASH #177765,%4 ;SHIFT R4 BY 177765
MOV @PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #10,%4 ;IS THE RESULT 10?
BEQ .+4
HLT ;R4 IS NOT EQUAL TO 10

:TEST 157 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

010336 010701
010340 012704 040000
010344 072427 177766
010350 013767 177776 003366
010356 122767 000000 003360
010364 001401
010366 000000
010370 022704 000020
010374 001401
010376 000000

SCOPE
MOV #40000,%4 ;LOAD R4 WITH 40000
ASH #177766,%4 ;SHIFT R4 BY 177766
MOV @PS,PSW ;SAVE PS
CMPB #0,PSW ;IS THE PS 0?
BEQ .+4
HLT ;THE PS IS NOT EQUAL TO 0
CMP #20,%4 ;IS THE RESULT 20?
BEQ .+4
HLT ;R4 IS NOT EQUAL TO 20

:TEST 160 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010400 | 010701 | | | SCOPE | | |
| 010402 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010406 | 072427 | 177767 | | ASH | #177767,%4 | ;SHIFT R4 BY 177767 |
| 010412 | 013767 | 177776 | 003324 | MOV | 2#PS,PSW | ;SAVE PS |
| 010420 | 122767 | 000000 | 003316 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010426 | 001401 | | | BEQ | +.4 | |
| 010430 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010432 | 022704 | 000040 | | CMP | #40,%4 | ;IS THE RESULT 40? |
| 010436 | 001401 | | | BEQ | +.4 | |
| 010440 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 40 |

:TEST 161 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010442 | 010701 | | | SCOPE | | |
| 010444 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010450 | 072427 | 177770 | | ASH | #177770,%4 | ;SHIFT R4 BY 177770 |
| 010454 | 013767 | 177776 | 003262 | MOV | 2#PS,PSW | ;SAVE PS |
| 010462 | 122767 | 000000 | 003254 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010470 | 001401 | | | BEQ | +.4 | |
| 010472 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010474 | 022704 | 000100 | | CMP | #100,%4 | ;IS THE RESULT 100? |
| 010500 | 001401 | | | BEQ | +.4 | |
| 010502 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 100 |

:TEST 162 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010504 | 010701 | | | SCOPE | | |
| 010506 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010512 | 072427 | 177771 | | ASH | #177771,%4 | ;SHIFT R4 BY 177771 |
| 010516 | 013767 | 177776 | 003220 | MOV | 2#PS,PSW | ;SAVE PS |
| 010524 | 122767 | 000000 | 003212 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010532 | 001401 | | | BEQ | +.4 | |
| 010534 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010536 | 022704 | 000200 | | CMP | #200,%4 | ;IS THE RESULT 200? |
| 010542 | 001401 | | | BEQ | +.4 | |
| 010544 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 200 |

:TEST 163 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010546 | 010701 | | | SCOPE | | |
| 010550 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010554 | 072427 | 177772 | | ASH | #177772,%4 | ;SHIFT R4 BY 177772 |
| 010560 | 013767 | 177776 | 003156 | MOV | @PS,PSW | ;SAVE PS |
| 010566 | 122767 | 000000 | 003150 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010574 | 001401 | | | BEQ | +.4 | |
| 010576 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010600 | 022704 | 000400 | | CMP | #400,%4 | ;IS THE RESULT 400? |
| 010604 | 001401 | | | BEQ | +.4 | |
| 010606 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 400 |

:TEST 164 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010610 | 010701 | | | SCOPE | | |
| 010612 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010616 | 072427 | 177773 | | ASH | #177773,%4 | ;SHIFT R4 BY 177773 |
| 010622 | 013767 | 177776 | 003114 | MOV | @PS,PSW | ;SAVE PS |
| 010630 | 122767 | 000000 | 003106 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010636 | 001401 | | | BEQ | +.4 | |
| 010640 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010642 | 022704 | 001000 | | CMP | #1000,%4 | ;IS THE RESULT 1000? |
| 010646 | 001401 | | | BEQ | +.4 | |
| 010650 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 1000 |

:TEST 165 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010652 | 010701 | | | SCOPE | | |
| 010654 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010660 | 072427 | 177774 | | ASH | #177774,%4 | ;SHIFT R4 BY 177774 |
| 010664 | 013767 | 177776 | 003052 | MOV | @PS,PSW | ;SAVE PS |
| 010672 | 122767 | 000000 | 003044 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010700 | 001401 | | | BEQ | +.4 | |
| 010702 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010704 | 022704 | 002000 | | CMP | #2000,%4 | ;IS THE RESULT 2000? |
| 010710 | 001401 | | | BEQ | +.4 | |
| 010712 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 2000 |

;TEST 166 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010714 | 010701 | | | SCOPE | | |
| 010716 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010722 | 072427 | 177775 | | ASH | #177775,%4 | ;SHIFT R4 BY 177775 |
| 010726 | 013767 | 177776 | 003010 | MOV | 2#PS,PSW | ;SAVE PS |
| 010734 | 122767 | 000000 | 003002 | CMPB | #0,PSW | ;IS THE PS 0? |
| 010742 | 001401 | | | BEQ | +.4 | |
| 010744 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 010746 | 022704 | 004000 | | CMP | #4000,%4 | ;IS THE RESULT 4000? |
| 010752 | 001401 | | | BEQ | +.4 | |
| 010754 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 4000 |

;TEST 167 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 010756 | 010701 | | | SCOPE | | |
| 010760 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 010764 | 072427 | 177776 | | ASH | #177776,%4 | ;SHIFT R4 BY 177776 |
| 010770 | 013767 | 177776 | 002746 | MOV | 2#PS,PSW | ;SAVE PS |
| 010776 | 122767 | 000000 | 002740 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011004 | 001401 | | | BEQ | +.4 | |
| 011006 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011010 | 022704 | 010000 | | CMP | #10000,%4 | ;IS THE RESULT 10000? |
| 011014 | 001401 | | | BEQ | +.4 | |
| 011016 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 10000 |

;TEST 170 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011020 | 010701 | | | SCOPE | | |
| 011022 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 011026 | 072427 | 177777 | | ASH | #177777,%4 | ;SHIFT R4 BY 177777 |
| 011032 | 013767 | 177776 | 002704 | MOV | 2#PS,PSW | ;SAVE PS |
| 011040 | 122767 | 000000 | 002676 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011046 | 001401 | | | BEQ | +.4 | |
| 011050 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011052 | 022704 | 020000 | | CMP | #20000,%4 | ;IS THE RESULT 20000? |
| 011056 | 001401 | | | BEQ | +.4 | |
| 011060 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 20000 |

;TEST 171 ASH 40000 SHIFTED BY 0 = 40000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 011062 | 010701 | | | SCOPE | | |
| 011064 | 012704 | 040000 | | MOV | #40000,%4 | ;LOAD R4 WITH 40000 |
| 011070 | 072427 | 000000 | | ASH | #0,%4 | ;SHIFT R4 BY 0 |
| 011074 | 013767 | 177776 | 002642 | MOV | 2#PS,PSW | ;SAVE PS |
| 011102 | 122767 | 000000 | 002634 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011110 | 001401 | | | BEQ | +.4 | |
| 011112 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011114 | 022704 | 040000 | | CMP | #40000,%4 | ;IS THE RESULT 40000? |
| 011120 | 001401 | | | BEQ | +.4 | |
| 011122 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 40000 |

;TEST 172 ASH 100000 SHIFTED BY -15. = -1 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 011124 | 010701 | | | SCOPE | | |
| 011126 | 012704 | 100000 | | MOV | #100000,%4 | ;LOAD R4 WITH 100000 |
| 011132 | 072427 | 177761 | | ASH | #-15,%4 | ;SHIFT R4 BY -15. |
| 011136 | 013767 | 177776 | 002600 | MOV | 2#PS,PSW | ;SAVE PS |
| 011144 | 122767 | 000010 | 002572 | CMPB | #10,PSW | ;IS THE PS 10? |
| 011152 | 001401 | | | BEQ | +.4 | |
| 011154 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 011156 | 022704 | 177777 | | CMP | #-1,%4 | ;IS THE RESULT -1? |
| 011162 | 001401 | | | BEQ | +.4 | |
| 011164 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO -1 |

;TEST 173 ASH -1 SHIFTED BY 15. = 100000 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 011166 | 010701 | | | SCOPE | | |
| 011170 | 012704 | 177777 | | MOV | #-1,%4 | ;LOAD R4 WITH -1 |
| 011174 | 072427 | 000017 | | ASH | #15,%4 | ;SHIFT R4 BY 15. |
| 011200 | 013767 | 177776 | 002536 | MOV | 2#PS,PSW | ;SAVE PS |
| 011206 | 122767 | 000011 | 002530 | CMPB | #11,PSW | ;IS THE PS 11? |
| 011214 | 001401 | | | BEQ | +.4 | |
| 011216 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 011220 | 022704 | 100000 | | CMP | #100000,%4 | ;IS THE RESULT 100000? |
| 011224 | 001401 | | | BEQ | +.4 | |
| 011226 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 100000 |

;TEST 174 ASH -1 SHIFTED BY 16. = 0 PS = 7

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 011230 | 010701 | | | SCOPE | | |
| 011232 | 012704 | 177777 | | MOV | #-1,%4 | ;LOAD R4 WITH -1 |
| 011236 | 072427 | 000020 | | ASH | #16,%4 | ;SHIFT R4 BY 16. |
| 011242 | 013767 | 177776 | 002474 | MOV | @#PS,PSW | ;SAVE PS |
| 011250 | 122767 | 000007 | 002466 | CMPB | #7,PSW | ;IS THE PS 7? |
| 011256 | 001401 | | | BEQ | .+4 | |
| 011260 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 7 |
| 011262 | 022704 | 000000 | | CMP | #0,%4 | ;IS THE RESULT 0? |
| 011266 | 001401 | | | BEQ | .+4 | |
| 011270 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 0 |

;TEST 175 ASH 137777 SHIFTED BY 15. = 100000 PS = 13

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 011272 | 010701 | | | SCOPE | | |
| 011274 | 012704 | 137777 | | MOV | #137777,%4 | ;LOAD R4 WITH 137777 |
| 011300 | 072427 | 000017 | | ASH | #15,%4 | ;SHIFT R4 BY 15. |
| 011304 | 013767 | 177776 | 002432 | MOV | @#PS,PSW | ;SAVE PS |
| 011312 | 122767 | 000013 | 002424 | CMPB | #13,PSW | ;IS THE PS 13? |
| 011320 | 001401 | | | BEQ | .+4 | |
| 011322 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 13 |
| 011324 | 022704 | 100000 | | CMP | #100000,%4 | ;IS THE RESULT 100000? |
| 011330 | 001401 | | | BEQ | .+4 | |
| 011332 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 100000 |

;TEST 176 ASH 125252 SHIFTED BY 1 = 52524 PS = 3

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011334 | 010701 | | | SCOPE | | |
| 011336 | 012704 | 125252 | | MOV | #125252,%4 | ;LOAD R4 WITH 125252 |
| 011342 | 072427 | 000001 | | ASH | #1,%4 | ;SHIFT R4 BY 1 |
| 011346 | 013767 | 177776 | 002370 | MOV | @#PS,PSW | ;SAVE PS |
| 011354 | 122767 | 000003 | 002362 | CMPB | #3,PSW | ;IS THE PS 3? |
| 011362 | 001401 | | | BEQ | .+4 | |
| 011364 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 3 |
| 011366 | 022704 | 052524 | | CMP | #52524,%4 | ;IS THE RESULT 52524? |
| 011372 | 001401 | | | BEQ | .+4 | |
| 011374 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 52524 |

;TEST 177 ASH 125252 SHIFTED BY -1 = 152525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 011376 | 010701 | | | SCOPE | | |
| 011400 | 012704 | 125252 | | MOV | #125252,%4 | ;LOAD R4 WITH 125252 |
| 011404 | 072427 | 177777 | | ASH | #-1,%4 | ;SHIFT R4 BY -1 |
| 011410 | 013767 | 177776 | 002326 | MOV | @#PS,PSW | ;SAVE PS |
| 011416 | 122767 | 000010 | 002320 | CMPB | #10,PSW | ;IS THE PS 10? |
| 011424 | 001401 | | | BEQ | +.4 | |
| 011426 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 011430 | 022704 | 152525 | | CMP | #152525,%4 | ;IS THE RESULT 152525? |
| 011434 | 001401 | | | BEQ | +.4 | |
| 011435 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 152525 |

;TEST 200 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 011440 | 010701 | | | SCOPE | | |
| 011442 | 012704 | 125252 | | MOV | #125252,%4 | ;LOAD R4 WITH 125252 |
| 011446 | 072427 | 177776 | | ASH | #-2,%4 | ;SHIFT R4 BY -2 |
| 011452 | 013767 | 177776 | 002264 | MOV | @#PS,PSW | ;SAVE PS |
| 011460 | 122767 | 000011 | 002256 | CMPB | #11,PSW | ;IS THE PS 11? |
| 011466 | 001401 | | | BEQ | +.4 | |
| 011470 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 011472 | 022704 | 165252 | | CMP | #165252,%4 | ;IS THE RESULT 165252? |
| 011476 | 001401 | | | BEQ | +.4 | |
| 011500 | 000000 | | | HLT | | ;R4 IS NOT EQUAL TO 165252 |

;TEST 201 ASH 40000 SHIFTED BY 177762 = 1 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011502 | 010701 | | | SCOPE | | |
| 011504 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011510 | 072527 | 177762 | | ASH | #177762,%5 | ;SHIFT R5 BY 177762 |
| 011514 | 013767 | 177776 | 002222 | MOV | @#PS,PSW | ;SAVE PS |
| 011522 | 122767 | 000000 | 002214 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011530 | 001401 | | | BEQ | +.4 | |
| 011532 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011534 | 022705 | 000001 | | CMP | #1,%5 | ;IS THE RESULT 1? |
| 011540 | 001401 | | | BEQ | +.4 | |
| 011542 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 1 |

;TEST 202 ASH 40000 SHIFTED BY 177763 = 2 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011544 | 010701 | | | SCOPE | | |
| 011546 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011552 | 072527 | 177763 | | ASH | #177763,%5 | ;SHIFT R5 BY 177763 |
| 011556 | 013767 | 177776 | 002160 | MOV | 2#PS,PSW | ;SAVE PS |
| 011564 | 122767 | 000000 | 002152 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011572 | 001401 | | | BEQ | +.4 | |
| 011574 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011576 | 022705 | 000002 | | CMP | #2,%5 | ;IS THE RESULT 2? |
| 011602 | 001401 | | | BEQ | +.4 | |
| 011604 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 2 |

;TEST 203 ASH 40000 SHIFTED BY 177764 = 4 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011606 | 010701 | | | SCOPE | | |
| 011610 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011614 | 072527 | 177764 | | ASH | #177764,%5 | ;SHIFT R5 BY 177764 |
| 011620 | 013767 | 177776 | 002116 | MOV | 2#PS,PSW | ;SAVE PS |
| 011626 | 122767 | 000000 | 002110 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011634 | 001401 | | | BEQ | +.4 | |
| 011636 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011640 | 022705 | 000004 | | CMP | #4,%5 | ;IS THE RESULT 4? |
| 011644 | 001401 | | | BEQ | +.4 | |
| 011646 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 4 |

;TEST 204 ASH 40000 SHIFTED BY 177765 = 10 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011650 | 010701 | | | SCOPE | | |
| 011652 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011656 | 072527 | 177765 | | ASH | #177765,%5 | ;SHIFT R5 BY 177765 |
| 011662 | 013767 | 177776 | 002054 | MOV | 2#PS,PSW | ;SAVE PS |
| 011670 | 122767 | 000000 | 002046 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011676 | 001401 | | | BEQ | +.4 | |
| 011700 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011702 | 022705 | 000010 | | CMP | #10,%5 | ;IS THE RESULT 10? |
| 011706 | 001401 | | | BEQ | +.4 | |
| 011710 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 10 |

;TEST 205 ASH 40000 SHIFTED BY 177766 = 20 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011712 | 010701 | | | SCOPE | | |
| 011714 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011720 | 072527 | 177766 | | ASH | #177766,%5 | ;SHIFT R5 BY 177766 |
| 011724 | 013767 | 177776 | 002012 | MOV | @#PS,PSW | ;SAVE PS |
| 011732 | 122767 | 000000 | 002004 | CMPB | #0,PSW | ;IS THE PS 0? |
| 011740 | 001401 | | | BEQ | +.4 | |
| 011742 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 011744 | 022705 | 000020 | | CMP | #20,%5 | ;IS THE RESULT 20? |
| 011750 | 001401 | | | BEQ | +.4 | |
| 011752 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 20 |

;TEST 206 ASH 40000 SHIFTED BY 177767 = 40 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 011754 | 010701 | | | SCOPE | | |
| 011756 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 011762 | 072527 | 177767 | | ASH | #177767,%5 | ;SHIFT R5 BY 177767 |
| 011766 | 013767 | 177776 | 001750 | MOV | @#PS,PSW | ;SAVE PS |
| 011774 | 122767 | 000000 | 001742 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012002 | 001401 | | | BEQ | +.4 | |
| 012004 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012006 | 022705 | 000040 | | CMP | #40,%5 | ;IS THE RESULT 40? |
| 012012 | 001401 | | | BEQ | +.4 | |
| 012014 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 40 |

;TEST 207 ASH 40000 SHIFTED BY 177770 = 100 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012016 | 010701 | | | SCOPE | | |
| 012020 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012024 | 072527 | 177770 | | ASH | #177770,%5 | ;SHIFT R5 BY 177770 |
| 012030 | 013767 | 177776 | 001706 | MOV | @#PS,PSW | ;SAVE PS |
| 012036 | 122767 | 000000 | 001700 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012044 | 001401 | | | BEQ | +.4 | |
| 012046 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012050 | 022705 | 000100 | | CMP | #100,%5 | ;IS THE RESULT 100? |
| 012054 | 001401 | | | BEQ | +.4 | |
| 012056 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 100 |

;TEST 210 ASH 40000 SHIFTED BY 177771 = 200 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012060 | 010701 | | | SCOPE | | |
| 012062 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012066 | 072527 | 177771 | | ASH | #177771,%5 | ;SHIFT R5 BY 177771 |
| 012072 | 013767 | 177776 | 001644 | MOV | 2#PS,PSW | ;SAVE PS |
| 012100 | 122767 | 000000 | 001636 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012106 | 001401 | | | BEQ | +.4 | |
| 012110 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012112 | 022705 | 000200 | | CMP | #200,%5 | ;IS THE RESULT 200? |
| 012116 | 001401 | | | BEQ | +.4 | |
| 012120 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 200 |

;TEST 211 ASH 40000 SHIFTED BY 177772 = 400 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012122 | 010701 | | | SCOPE | | |
| 012124 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012130 | 072527 | 177772 | | ASH | #177772,%5 | ;SHIFT R5 BY 177772 |
| 012134 | 013767 | 177776 | 001602 | MOV | 2#PS,PSW | ;SAVE PS |
| 012142 | 122767 | 000000 | 001574 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012150 | 001401 | | | BEQ | +.4 | |
| 012152 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012154 | 022705 | 000400 | | CMP | #400,%5 | ;IS THE RESULT 400? |
| 012160 | 001401 | | | BEQ | +.4 | |
| 012162 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 400 |

;TEST 212 ASH 40000 SHIFTED BY 177773 = 1000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012164 | 010701 | | | SCOPE | | |
| 012166 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012172 | 072527 | 177773 | | ASH | #177773,%5 | ;SHIFT R5 BY 177773 |
| 012176 | 013767 | 177776 | 001540 | MOV | 2#PS,PSW | ;SAVE PS |
| 012204 | 122767 | 000000 | 001532 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012212 | 001401 | | | BEQ | +.4 | |
| 012214 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012216 | 022705 | 001000 | | CMP | #1000,%5 | ;IS THE RESULT 1000? |
| 012222 | 001401 | | | BEQ | +.4 | |
| 012224 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 1000 |

;TEST 213 ASH 40000 SHIFTED BY 177774 = 2000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012226 | 010701 | | | SCOPE | | |
| 012230 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012234 | 072527 | 177774 | | ASH | #177774,%5 | ;SHIFT R5 BY 177774 |
| 012240 | 013767 | 177776 | 001476 | MOV | @PS,PSW | ;SAVE PS |
| 012246 | 122767 | 000000 | 001470 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012254 | 001401 | | | BEQ | +.4 | |
| 012256 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012260 | 022705 | 002000 | | CMP | #2000,%5 | ;IS THE RESULT 2000? |
| 012264 | 001401 | | | BEQ | +.4 | |
| 012266 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 2000 |

;TEST 214 ASH 40000 SHIFTED BY 177775 = 4000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012270 | 010701 | | | SCOPE | | |
| 012272 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012276 | 072527 | 177775 | | ASH | #177775,%5 | ;SHIFT R5 BY 177775 |
| 012302 | 013767 | 177776 | 001434 | MOV | @PS,PSW | ;SAVE PS |
| 012310 | 122767 | 000000 | 001426 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012316 | 001401 | | | BEQ | +.4 | |
| 012320 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012322 | 022705 | 004000 | | CMP | #4000,%5 | ;IS THE RESULT 4000? |
| 012326 | 001401 | | | BEQ | +.4 | |
| 012330 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 4000 |

;TEST 215 ASH 40000 SHIFTED BY 177776 = 10000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012332 | 010701 | | | SCOPE | | |
| 012334 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012340 | 072527 | 177776 | | ASH | #177776,%5 | ;SHIFT R5 BY 177776 |
| 012344 | 013767 | 177776 | 001372 | MOV | @PS,PSW | ;SAVE PS |
| 012352 | 122767 | 000000 | 001364 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012360 | 001401 | | | BEQ | +.4 | |
| 012362 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012364 | 022705 | 010000 | | CMP | #10000,%5 | ;IS THE RESULT 10000? |
| 012370 | 001401 | | | BEQ | +.4 | |
| 012372 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 10000 |

;TEST 216 ASH 40000 SHIFTED BY 177777 = 20000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012374 | 010701 | | | SCOPE | | |
| 012376 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012402 | 072527 | 177777 | | ASH | #177777,%5 | ;SHIFT R5 BY 177777 |
| 012406 | 013767 | 177776 | 001330 | MOV | @#PS,PSW | ;SAVE PS |
| 012414 | 122767 | 000000 | 001322 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012422 | 001401 | | | BEQ | +.4 | |
| 012424 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012426 | 022705 | 020000 | | CMP | #20000,%5 | ;IS THE RESULT 20000? |
| 012432 | 001401 | | | BEQ | +.4 | |
| 012434 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 20000 |

;TEST 217 ASH 40000 SHIFTED BY 0 = 40000 PS = 0

| | | | | | | |
|--------|--------|--------|--------|-------|-----------|---------------------------|
| 012436 | 010701 | | | SCOPE | | |
| 012440 | 012705 | 040000 | | MOV | #40000,%5 | ;LOAD R5 WITH 40000 |
| 012444 | 072527 | 000000 | | ASH | #0,%5 | ;SHIFT R5 BY 0 |
| 012450 | 013767 | 177776 | 001266 | MOV | @#PS,PSW | ;SAVE PS |
| 012456 | 122767 | 000000 | 001260 | CMPB | #0,PSW | ;IS THE PS 0? |
| 012464 | 001401 | | | BEQ | +.4 | |
| 012466 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 0 |
| 012470 | 022705 | 040000 | | CMP | #40000,%5 | ;IS THE RESULT 40000? |
| 012474 | 001401 | | | BEQ | +.4 | |
| 012476 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO 40000 |

;TEST 220 ASH 100000 SHIFTED BY -15. = -1 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 012500 | 010701 | | | SCOPE | | |
| 012502 | 012705 | 100000 | | MOV | #100000,%5 | ;LOAD R5 WITH 100000 |
| 012506 | 072527 | 177761 | | ASH | #-15,%5 | ;SHIFT R5 BY -15. |
| 012512 | 013767 | 177776 | 001224 | MOV | @#PS,PSW | ;SAVE PS |
| 012520 | 122767 | 000010 | 001216 | CMPB | #10,PSW | ;IS THE PS 10? |
| 012526 | 001401 | | | BEQ | +.4 | |
| 012530 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 012532 | 022705 | 177777 | | CMP | #-1,%5 | ;IS THE RESULT -1? |
| 012536 | 001401 | | | BEQ | +.4 | |
| 012540 | 000000 | | | HLT | | ;R5 IS NOT EQUAL TO -1 |

:TEST 221 ASH -1 SHIFTED BY 15. = 100000 PS = 11
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 012542 | 010701 | | | SCOPE | | |
| 012544 | 012705 | 177777 | | MOV | #-1,%5 | ;LOAD RS WITH -1 |
| 012550 | 072527 | 000017 | | ASH | #15,%5 | ;SHIFT RS BY 15. |
| 012554 | 013767 | 177776 | 001162 | MOV | 2#PS,PSW | ;SAVE PS |
| 012562 | 122767 | 000011 | 001154 | CMPB | #11,PSW | ;IS THE PS 11? |
| 012570 | 001401 | | | BEQ | +.4 | |
| 012572 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 012574 | 022705 | 100000 | | CMP | #100000,%5 | ;IS THE RESULT 100000? |
| 012600 | 001401 | | | BEQ | +.4 | |
| 012602 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 100000 |

:TEST 222 ASH -1 SHIFTED BY 16. = 0 PS = 7
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|----------|---------------------------|
| 012604 | 010701 | | | SCOPE | | |
| 012606 | 012705 | 177777 | | MOV | #-1,%5 | ;LOAD RS WITH -1 |
| 012612 | 072527 | 000020 | | ASH | #16,%5 | ;SHIFT RS BY 16. |
| 012616 | 013767 | 177776 | 001120 | MOV | 2#PS,PSW | ;SAVE PS |
| 012624 | 122767 | 000007 | 001112 | CMPB | #7,PSW | ;IS THE PS 7? |
| 012632 | 001401 | | | BEQ | +.4 | |
| 012634 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 7 |
| 012636 | 022705 | 000000 | | CMP | #0,%5 | ;IS THE RESULT 0? |
| 012642 | 001401 | | | BEQ | +.4 | |
| 012644 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 0 |

:TEST 223 ASH 137777 SHIFTED BY 15. = 100000 PS = 13
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 012646 | 010701 | | | SCOPE | | |
| 012650 | 012705 | 137777 | | MOV | #137777,%5 | ;LOAD RS WITH 137777 |
| 012654 | 072527 | 000017 | | ASH | #15,%5 | ;SHIFT RS BY 15. |
| 012660 | 013767 | 177776 | 001056 | MOV | 2#PS,PSW | ;SAVE PS |
| 012666 | 122767 | 000013 | 001050 | CMPB | #13,PSW | ;IS THE PS 13? |
| 012674 | 001401 | | | BEQ | +.4 | |
| 012676 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 13 |
| 012700 | 022705 | 100000 | | CMP | #100000,%5 | ;IS THE RESULT 100000? |
| 012704 | 001401 | | | BEQ | +.4 | |
| 012706 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 100000 |

:TEST 224 ASH 125252 SHIFTED BY 1 = 52524 PS = 3

| | | | | | | |
|--------|--------|--------|--------|-------|------------|---------------------------|
| 012710 | 010701 | | | SCOPE | | |
| 012712 | 012705 | 125252 | | MOV | #125252,%5 | ;LOAD RS WITH 125252 |
| 012716 | 072527 | 000001 | | ASH | #1,%5 | ;SHIFT RS BY 1 |
| 012722 | 013767 | 177776 | 001014 | MOV | 2#PS,PSW | ;SAVE PS |
| 012730 | 122767 | 000003 | 001006 | CMPB | #3,PSW | ;IS THE PS 3? |
| 012736 | 001401 | | | BEQ | .+4 | |
| 012740 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 3 |
| 012742 | 022705 | 052524 | | CMP | #52524,%5 | ;IS THE RESULT 52524? |
| 012746 | 001401 | | | BEQ | .+4 | |
| 012750 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 52524 |

:TEST 225 ASH 125252 SHIFTED BY -1 = 152525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 012752 | 010701 | | | SCOPE | | |
| 012754 | 012705 | 125252 | | MOV | #125252,%5 | ;LOAD RS WITH 125252 |
| 012760 | 072527 | 177777 | | ASH | #-1,%5 | ;SHIFT RS BY -1 |
| 012764 | 013767 | 177776 | 000752 | MOV | 2#PS,PSW | ;SAVE PS |
| 012772 | 122767 | 000010 | 000744 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013000 | 001401 | | | BEQ | .+4 | |
| 013002 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013004 | 022705 | 152525 | | CMP | #152525,%5 | ;IS THE RESULT 152525? |
| 013010 | 001401 | | | BEQ | .+4 | |
| 013012 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 152525 |

:TEST 226 ASH 125252 SHIFTED BY -2 = 165252 PS = 11

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013014 | 010701 | | | SCOPE | | |
| 013016 | 012705 | 125252 | | MOV | #125252,%5 | ;LOAD RS WITH 125252 |
| 013022 | 072527 | 177776 | | ASH | #-2,%5 | ;SHIFT RS BY -2 |
| 013026 | 013767 | 177776 | 000710 | MOV | 2#PS,PSW | ;SAVE PS |
| 013034 | 122767 | 000011 | 000702 | CMPB | #11,PSW | ;IS THE PS 11? |
| 013042 | 001401 | | | BEQ | .+4 | |
| 013044 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 11 |
| 013046 | 022705 | 165252 | | CMP | #165252,%5 | ;IS THE RESULT 165252? |
| 013052 | 001401 | | | BEQ | .+4 | |
| 013054 | 000000 | | | HLT | | ;RS IS NOT EQUAL TO 165252 |

| | | | | | | |
|--------|--------|--------|--|-----|--------|--|
| 013056 | 012704 | 177771 | | MOV | #-7,%4 | |
| 013062 | 012702 | 013750 | | MOV | #51,%2 | |
| 013066 | 012703 | 013752 | | MOV | #52,%3 | |

:TEST 227 11/40 ASH 125252 SHIFTED BY S1 = 177525 PS = 10
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013072 | 010701 | | | SCOPE | | |
| 013074 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013100 | 072067 | 000644 | | ASH | S1,%0 | ;SHIFT RO BY S1 |
| 013104 | 013767 | 177776 | 000632 | MOV | @PS,PSW | ;SAVE PS |
| 013112 | 122767 | 000010 | 000624 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013120 | 001401 | | | BEQ | .+4 | |
| 013122 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013124 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013130 | 001401 | | | BEQ | .+4 | |
| 013132 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 230 11/40 ASH 125252 SHIFTED BY @S2 = 177525 PS = 10
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013134 | 010701 | | | SCOPE | | |
| 013136 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013142 | 072077 | 000604 | | ASH | @S2,%0 | ;SHIFT RO BY @S2 |
| 013146 | 013767 | 177776 | 000570 | MOV | @PS,PSW | ;SAVE PS |
| 013154 | 122767 | 000010 | 000562 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013162 | 001401 | | | BEQ | .+4 | |
| 013164 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013166 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013172 | 001401 | | | BEQ | .+4 | |
| 013174 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 231 11/40 ASH 125252 SHIFTED BY @S1 = 177525 PS = 10
:*****

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013176 | 010701 | | | SCOPE | | |
| 013200 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013204 | 072037 | 013750 | | ASH | @S1,%0 | ;SHIFT RO BY @S1 |
| 013210 | 013767 | 177776 | 000526 | MOV | @PS,PSW | ;SAVE PS |
| 013216 | 122767 | 000010 | 000520 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013224 | 001401 | | | BEQ | .+4 | |
| 013226 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013230 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013234 | 001401 | | | BEQ | .+4 | |
| 013236 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

E05

MAINDEC-11-DCKBI-8 ASH TEST
DCKBIB.SRC

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:TEST 232 11/40 ASH 125252 SHIFTED BY %4 = 177525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013240 | 010701 | | | SCOPE | | |
| 013242 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013246 | 072004 | | | ASH | %4,%0 | ;SHIFT RO BY %4 |
| 013250 | 013767 | 177776 | 000466 | MOV | 2#PS,PSW | ;SAVE PS |
| 013256 | 122767 | 000010 | 000460 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013264 | 001401 | | | BEQ | +.4 | |
| 013266 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013270 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013274 | 001401 | | | BEQ | +.4 | |
| 013276 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 233 11/40 ASH 125252 SHIFTED BY (2)+ = 177525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013300 | 010701 | | | SCOPE | | |
| 013302 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013306 | 072022 | | | ASH | (2)+,%0 | ;SHIFT RO BY (2)+ |
| 013310 | 013767 | 177776 | 000426 | MOV | 2#PS,PSW | ;SAVE PS |
| 013316 | 122767 | 000010 | 000420 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013324 | 001401 | | | BEQ | +.4 | |
| 013326 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013330 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013334 | 001401 | | | BEQ | +.4 | |
| 013336 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 234 11/40 ASH 125252 SHIFTED BY -(2) = 177525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013340 | 010701 | | | SCOPE | | |
| 013342 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013346 | 072042 | | | ASH | -(2),%0 | ;SHIFT RO BY -(2) |
| 013350 | 013767 | 177776 | 000366 | MOV | 2#PS,PSW | ;SAVE PS |
| 013356 | 122767 | 000010 | 000360 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013364 | 001401 | | | BEQ | +.4 | |
| 013366 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013370 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013374 | 001401 | | | BEQ | +.4 | |
| 013376 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 240 11/40 ASH 125252 SHIFTED BY 2-(3) = 177525 PS = 10

| | | | | | | |
|--------|--------|--------|--------|-------|------------|----------------------------|
| 013544 | 010701 | | | SCOPE | | |
| 013546 | 012700 | 125252 | | MOV | #125252,%0 | ;LOAD RO WITH 125252 |
| 013552 | 072053 | | | ASH | 2-(3),%0 | ;SHIFT RO BY 2-(3) |
| 013554 | 013767 | 177776 | 000162 | MOV | 2#PS,PSW | ;SAVE PS |
| 013562 | 122767 | 000010 | 000154 | CMPB | #10,PSW | ;IS THE PS 10? |
| 013570 | 001401 | | | BEQ | +.4 | |
| 013572 | 000000 | | | HLT | | ;THE PS IS NOT EQUAL TO 10 |
| 013574 | 022700 | 177525 | | CMP | #177525,%0 | ;IS THE RESULT 177525? |
| 013600 | 001401 | | | BEQ | +.4 | |
| 013602 | 000000 | | | HLT | | ;RO IS NOT EQUAL TO 177525 |

:TEST 241 CHECKS THAT ASH WITH DST MODE 5 RETURNS
DECREMENTED OPERAND TO DST REGISTER

:NOTE: THIS ROUTINE DOES NOT HAVE TO PASS IN SOME CASES IN FIELD
:SERVICE ONLY. IT MUST PASS IN MANUFACTURING TO REFLECT ECO M7238-0004.
:SEE PARAGRAPH 9.1 AT BEGINNING OF PROGRAM FOR FULL EXPLANATION.

| | | | | | | |
|--------|--------|--------|--------|-------------|----------------|---------------------------------------|
| 013604 | 010701 | | | SCOPE | | |
| 013606 | 012700 | 000100 | | MOV | #100,RO | ;LOAD RO WITH 100 |
| 013612 | 012701 | 013636 | | MOV | #Q+2,R1 | ;LOAD R1 WITH DST OPERAND |
| 013616 | 072051 | | | ASH | 2-(1),RO | ;SHIFT USING DST MODE 5 |
| 013620 | 022701 | 013634 | | CMP | #Q,R1 | ;DECREMENTED OPERAND RETURNED TO R1? |
| 013624 | 001404 | | | BEQ | PASCNT | ;YES |
| 013626 | 000000 | | | HLT | | ;R1 DOES NOT HAVE DECREMENTED OPERAND |
| 013630 | 000402 | | | BR | PASCNT | ;BRANCH AHEAD ON CONTINUE |
| 013632 | 000003 | | | .WORD | 3 | |
| 013634 | 013632 | | | Q: .WORD | .-2 | |
| 013636 | 005267 | 165136 | | PASCNT: INC | ICNT | |
| 013642 | 016737 | 165132 | 177570 | MOV | ICNT,2#DISPLAY | |
| 013650 | 022767 | 020000 | 165122 | CMP | #20000,ICNT | |
| 013656 | 001402 | | | BEQ | +.6 | |
| 013660 | 000167 | 165152 | | JMP | BEG | |
| 013664 | 005067 | 165110 | | CLR | ICNT | |
| 013670 | 105737 | 177564 | | TSTB | 2#TPS | |
| 013674 | 100375 | | | BPL | .-4 | |
| 013676 | 112737 | 000007 | 177566 | MOVB | #7,2#TPB | ;RING BELL FOR PASS COMPLETE |
| 013704 | 105737 | 177564 | | TSTB | 2#TPS | |
| 013710 | 100375 | | | BPL | .-4 | |
| 013712 | 112737 | 000052 | 177566 | MOVB | #52,2#TPB | ;ALSO PRINT '*' FOR PASS COMPLETE |
| 013720 | 013700 | 000042 | | MOV | 2#42,%0 | ;GET MONITOR RETURN ADDRESS |
| 013724 | 001405 | | | BEQ | AGAIN | ;SKIP IF NONE |
| 013726 | 000005 | | | RESET | | |
| 013730 | 004710 | | | SENDAD: JSR | 7,(0) | ;GO BACK TO THE MONITOR |
| 013732 | 000240 | | | NOP | | |
| 013734 | 000240 | | | NOP | | |
| 013736 | 000240 | | | NOP | | |
| 013740 | 000137 | 000200 | | AGAIN: JMP | 2#200 | ;RESTART THE PROGRAM |

| | | | | | |
|--------|--------|--------|--------|-------|---|
| 013744 | 000000 | | | PSW: | 0 |
| 013746 | 000007 | | | S0: | 7 |
| 013750 | 177771 | | | S1: | -7 |
| 013752 | 013750 | | | S2: | S1 |
| 013754 | 177772 | | | S3: | -6 |
| 013756 | 005015 | 041504 | 041113 | MSG1: | .ASCIZ <15><12>/DCKBI-B ASH INSTRUCTION TEST/<15><12><12> |
| 013764 | 026511 | 020102 | 051501 | | |
| 013772 | 020110 | 047111 | 052123 | | |
| 014000 | 052522 | 052103 | 047511 | | |
| 014006 | 020116 | 042524 | 052123 | | |
| 014014 | 005015 | 000012 | | | |
| | 000001 | | | .END | |

AGAIN 013740
BEG 001036
BEG1 001002
DISPLA= 177570
DUMMY = 000000
MLT = 000000

| | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 2957 | 2963* | | | | | | | | | | | | | |
| 182 | 187 | 191* | 2948 | | | | | | | | | | | |
| 178 | 181* | | | | | | | | | | | | | |
| 165* | 2945* | | | | | | | | | | | | | |
| 167* | | | | | | | | | | | | | | |
| 162* | 211 | 214 | 228 | 231 | 245 | 248 | 263 | 266 | 290 | 283 | 297 | 300 | | |
| 314 | 317 | 331 | 334 | 348 | 351 | 365 | 368 | 382 | 385 | 399 | 402 | 416 | | |
| 419 | 433 | 436 | 450 | 453 | 467 | 470 | 484 | 487 | 501 | 504 | 518 | 521 | | |
| 535 | 538 | 552 | 555 | 569 | 572 | 586 | 589 | 603 | 606 | 620 | 623 | 637 | | |
| 640 | 654 | 657 | 671 | 674 | 688 | 691 | 705 | 708 | 722 | 725 | 739 | 742 | | |
| 756 | 759 | 773 | 776 | 790 | 793 | 807 | 810 | 824 | 827 | 841 | 844 | 858 | | |
| 861 | 875 | 878 | 892 | 895 | 909 | 912 | 926 | 929 | 943 | 946 | 960 | 963 | | |
| 977 | 980 | 994 | 997 | 1011 | 1014 | 1028 | 1031 | 1045 | 1048 | 1062 | 1065 | 1079 | | |
| 1082 | 1096 | 1099 | 1113 | 1116 | 1130 | 1133 | 1147 | 1150 | 1164 | 1167 | 1181 | 1184 | | |
| 1198 | 1201 | 1215 | 1218 | 1232 | 1235 | 1249 | 1252 | 1266 | 1269 | 1283 | 1286 | 1300 | | |
| 1303 | 1317 | 1320 | 1334 | 1337 | 1351 | 1354 | 1368 | 1371 | 1385 | 1388 | 1402 | 1405 | | |
| 1419 | 1422 | 1436 | 1439 | 1453 | 1456 | 1470 | 1473 | 1487 | 1490 | 1504 | 1507 | 1521 | | |
| 1524 | 1538 | 1541 | 1555 | 1558 | 1572 | 1575 | 1589 | 1592 | 1606 | 1609 | 1623 | 1626 | | |
| 1640 | 1643 | 1657 | 1660 | 1674 | 1677 | 1691 | 1694 | 1708 | 1711 | 1725 | 1728 | 1742 | | |
| 1745 | 1759 | 1762 | 1776 | 1779 | 1793 | 1796 | 1810 | 1813 | 1827 | 1830 | 1844 | 1847 | | |
| 1861 | 1864 | 1878 | 1881 | 1895 | 1898 | 1912 | 1915 | 1929 | 1932 | 1946 | 1949 | 1963 | | |
| 1966 | 1980 | 1983 | 1997 | 2000 | 2014 | 2017 | 2031 | 2034 | 2048 | 2051 | 2065 | 2068 | | |
| 2082 | 2085 | 2099 | 2102 | 2116 | 2119 | 2133 | 2136 | 2150 | 2153 | 2167 | 2170 | 2184 | | |
| 2187 | 2201 | 2204 | 2218 | 2221 | 2235 | 2238 | 2252 | 2255 | 2269 | 2272 | 2286 | 2289 | | |
| 2303 | 2306 | 2320 | 2323 | 2337 | 2340 | 2354 | 2357 | 2371 | 2374 | 2388 | 2391 | 2405 | | |
| 2408 | 2422 | 2425 | 2439 | 2442 | 2456 | 2459 | 2473 | 2476 | 2490 | 2493 | 2507 | 2510 | | |
| 2524 | 2527 | 2541 | 2544 | 2558 | 2561 | 2575 | 2578 | 2592 | 2595 | 2609 | 2612 | 2626 | | |
| 2629 | 2643 | 2646 | 2660 | 2663 | 2677 | 2680 | 2694 | 2697 | 2711 | 2714 | 2728 | 2731 | | |
| 2745 | 2748 | 2765 | 2768 | 2782 | 2785 | 2799 | 2802 | 2816 | 2819 | 2833 | 2836 | 2850 | | |
| 2853 | 2867 | 2870 | 2884 | 2887 | 2901 | 2904 | 2918 | 2921 | 2939 | | | | | |
| 180* | 2944* | 2945 | 2946 | 2949* | | | | | | | | | | |
| 168* | 253 | 270 | 287 | 304 | 321 | 338 | 355 | 372 | 389 | 406 | 423 | 440 | | |
| 457 | 474 | 491 | 508 | 525 | 542 | 559 | 576 | 593 | 610 | 627 | 644 | 661 | | |
| 678 | 695 | 712 | 729 | 746 | 763 | 780 | 797 | 814 | 831 | 848 | 865 | 882* | | |
| 899 | 916 | 933 | 950 | 967 | 984 | 1001 | 1018 | 1035 | 1052 | 1069 | 1086 | 1103 | | |
| 1120 | 1137 | 1154 | 1171 | 1188 | 1205 | 1222 | 1239 | 1256* | 1273 | 1290 | 1307 | 1324 | | |
| 1341 | 1358 | 1375 | 1392 | 1409 | 1426 | 1443 | 1460 | 1477 | 1494 | 1511 | 1528 | 1545 | | |
| 1562 | 1579 | 1596 | 1613 | 1630* | 1647 | 1664 | 1681 | 1698 | 1715 | 1732 | 1749 | 1766 | | |
| 1783 | 1800 | 1817 | 1834 | 1851 | 1868 | 1885 | 1902 | 1919 | 1936 | 1953 | 1970 | 1987 | | |
| 2004* | 2021 | 2038 | 2055 | 2072 | 2089 | 2106 | 2123 | 2140 | 2157 | 2174 | 2191 | 2208 | | |
| 2225 | 2242 | 2259 | 2276 | 2293 | 2310 | 2327 | 2344 | 2361 | 2378* | 2395 | 2412 | 2429 | | |
| 2446 | 2463 | 2480 | 2497 | 2514 | 2531 | 2548 | 2565 | 2582 | 2599 | 2616 | 2633 | 2650 | | |
| 2667 | 2684 | 2701 | 2718 | 2735 | 2752* | | | | | | | | | |
| 183 | 2970* | | | | | | | | | | | | | |
| 166* | 201 | 218* | 235* | 252* | 253 | 270* | 287* | 304* | 321* | 338* | 355* | 372* | | |
| 389* | 406* | 423* | 440* | 457* | 474* | 491* | 508* | 525* | 542* | 559* | 576* | 593* | | |
| 610* | 627* | 644* | 661* | 678* | 695* | 712* | 729* | 746* | 763* | 780* | 797* | 814* | | |
| 831* | 848* | 865* | 882* | 899* | 916* | 933* | 950* | 967* | 984* | 1001* | 1018* | 1035* | | |
| 1052* | 1069* | 1086* | 1103* | 1120* | 1137* | 1154* | 1171* | 1188* | 1205* | 1222* | 1239* | 1256* | | |
| 1273* | 1290* | 1307* | 1324* | 1341* | 1358* | 1375* | 1392* | 1409* | 1426* | 1443* | 1460* | 1477* | | |
| 1494* | 1511* | 1528* | 1545* | 1562* | 1579* | 1596* | 1613* | 1630* | 1647* | 1664* | 1681* | 1698* | | |
| 1715* | 1732* | 1749* | 1766* | 1783* | 1800* | 1817* | 1834* | 1851* | 1868* | 1885* | 1902* | 1919* | | |
| 1936* | 1953* | 1970* | 1987* | 2004* | 2021* | 2038* | 2055* | 2072* | 2089* | 2106* | 2123* | 2140* | | |
| 2157* | 2174* | 2191* | 2208* | 2225* | 2242* | 2259* | 2276* | 2293* | 2310* | 2327* | 2344* | 2361* | | |
| 2378* | 2395* | 2412* | 2429* | 2446* | 2463* | 2480* | 2497* | 2514* | 2531* | 2548* | 2565* | 2582* | | |
| 2599* | 2616* | 2633* | 2650* | 2667* | 2684* | 2701* | 2718* | 2735* | 2752* | 2772* | 2789* | | | |

ICNT 001000
M = 000006

MSG1 013756
N = 000241

PASCNT 013636
PS = 177776

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|--|
| 2806# | 2823# | 2840# | 2857# | 2874# | 2891# | 2908# | 2925# | | | | | | |
| 2938 | 2940 | 2944# | | | | | | | | | | | |
| 163# | 192* | 195* | 208 | 225 | 242 | 260 | 277 | 294 | 311 | 328 | 345 | 362 | |
| 379 | 396 | 413 | 430 | 447 | 464 | 481 | 498 | 515 | 532 | 549 | 566 | 583 | |
| 600 | 617 | 634 | 651 | 668 | 685 | 702 | 719 | 736 | 753 | 770 | 787 | 804 | |
| 821 | 838 | 855 | 872 | 889 | 906 | 923 | 940 | 957 | 974 | 991 | 1008 | 1025 | |
| 1042 | 1059 | 1076 | 1093 | 1110 | 1127 | 1144 | 1161 | 1178 | 1195 | 1212 | 1229 | 1246 | |
| 1263 | 1280 | 1297 | 1314 | 1331 | 1348 | 1365 | 1382 | 1399 | 1416 | 1433 | 1450 | 1467 | |
| 1484 | 1501 | 1518 | 1535 | 1552 | 1569 | 1586 | 1603 | 1620 | 1637 | 1654 | 1671 | 1688 | |
| 1705 | 1722 | 1739 | 1756 | 1773 | 1790 | 1807 | 1824 | 1841 | 1858 | 1875 | 1892 | 1909 | |
| 1926 | 1943 | 1960 | 1977 | 1994 | 2011 | 2028 | 2045 | 2062 | 2079 | 2096 | 2113 | 2130 | |
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| 2368 | 2385 | 2402 | 2419 | 2436 | 2453 | 2470 | 2487 | 2504 | 2521 | 2538 | 2555 | 2572 | |
| 2589 | 2606 | 2623 | 2640 | 2657 | 2674 | 2691 | 2708 | 2725 | 2742 | 2762 | 2779 | 2796 | |
| 2813 | 2830 | 2847 | 2864 | 2881 | 2898 | 2915 | | | | | | | |

PSW 013744

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 208* | 209 | 225* | 226 | 242* | 243 | 260* | 261 | 277* | 278 | 294* | 295 | 311* | |
| 312 | 328* | 329 | 345* | 346 | 362* | 363 | 379* | 380 | 396* | 397 | 413* | 414 | |
| 430* | 431 | 447* | 448 | 464* | 465 | 481* | 482 | 498* | 499 | 515* | 516 | 532* | |
| 533 | 549* | 550 | 566* | 567 | 583* | 584 | 600* | 601 | 617* | 618 | 634* | 635 | |
| 671* | 652 | 668* | 669 | 685* | 686 | 702* | 703 | 719* | 720 | 736* | 737 | 753* | |
| 754 | 770* | 771 | 787* | 788 | 804* | 805 | 821* | 822 | 838* | 839 | 855* | 856 | |
| 872* | 873 | 889* | 890 | 906* | 907 | 923* | 924 | 940* | 941 | 957* | 958 | 974* | |
| 975 | 991* | 992 | 1008* | 1009 | 1025* | 1026 | 1042* | 1043 | 1059* | 1060 | 1076* | 1077 | |
| 1093* | 1094 | 1110* | 1111 | 1127* | 1128 | 1144* | 1145 | 1161* | 1162 | 1178* | 1179 | 1195* | |
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| 1314* | 1315 | 1331* | 1332 | 1348* | 1349 | 1365* | 1366 | 1382* | 1383 | 1399* | 1400 | 1416* | |
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| 1535* | 1536 | 1552* | 1553 | 1569* | 1570 | 1586* | 1587 | 1603* | 1604 | 1620* | 1621 | 1637* | |
| 1638 | 1654* | 1655 | 1671* | 1672 | 1688* | 1689 | 1705* | 1706 | 1722* | 1723 | 1739* | 1740 | |
| 1756* | 1757 | 1773* | 1774 | 1790* | 1791 | 1807* | 1808 | 1824* | 1825 | 1841* | 1842 | 1858* | |
| 1859 | 1875* | 1876 | 1892* | 1893 | 1909* | 1910 | 1926* | 1927 | 1943* | 1944 | 1960* | 1961 | |
| 1977* | 1978 | 1994* | 1995 | 2011* | 2012 | 2028* | 2029 | 2045* | 2046 | 2062* | 2063 | 2079* | |
| 2080 | 2096* | 2097 | 2113* | 2114 | 2130* | 2131 | 2147* | 2148 | 2164* | 2165 | 2181* | 2182 | |
| 2198* | 2199 | 2215* | 2216 | 2232* | 2233 | 2249* | 2250 | 2266* | 2267 | 2283* | 2284 | 2300* | |
| 2301 | 2317* | 2318 | 2334* | 2335 | 2351* | 2352 | 2368* | 2369 | 2385* | 2386 | 2402* | 2403 | |
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| 2864* | 2865 | 2881* | 2882 | 2898* | 2899 | 2915* | 2916 | 2965# | | | | | |

Q 013634
R = 100000

| | | | | | | | | | | | | | |
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| 253# | 270# | 287# | 304# | 321# | 338# | 355# | 372# | 389# | 406# | 423# | 440# | 457# | |
| 474# | 491# | 508# | 525# | 542# | 559# | 576# | 593# | 610# | 627# | 644# | 661# | 678# | |
| 695# | 712# | 729# | 746# | 763# | 782# | 799# | 816# | 833# | 850# | 867# | 884# | 901# | |
| 1018# | 1035# | 1052# | 1069# | 1086# | 1103# | 1120# | 1137# | 1154# | 1171# | 1188# | 1205# | 1222# | |
| 1341# | 1358# | 1375# | 1392# | 1409# | 1426# | 1443# | 1460# | 1477# | 1494# | 1511# | 1528# | 1545# | |
| 1664# | 1681# | 1698# | 1715# | 1732# | 1749# | 1766# | 1783# | 1800# | 1817# | 1834# | 1851# | 1868# | |
| 1885# | 2004# | 2021# | 2038# | 2055# | 2072# | 2089# | 2106# | 2123# | 2140# | 2157# | 2174# | 2191# | |
| 2208# | 2225# | 2242# | 2259# | 2276# | 2293# | 2310# | 2327# | 2344# | 2361# | 2378# | 2395# | 2412# | |
| 2531# | 2548# | 2565# | 2582# | 2599# | 2616# | 2633# | | | | | | | |

RO =%00000G
R1 =%000001
RS =%000005
SCOPE = 010701

| | | | | | | | | | | | | | |
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| 183# | | | | | | | | | | | | | |
| 161# | 205 | 222 | 239 | 257 | 274 | 291 | 308 | 325 | 342 | 359 | 376 | 393 | |
| 410 | 427 | 444 | 461 | 478 | 495 | 512 | 529 | 546 | 563 | 580 | 597 | 614 | |
| 631 | 648 | 665 | 682 | 699 | 716 | 733 | 750 | 767 | 784 | 801 | 818 | 835 | |

K05

MAINDEC-11-DCKBI-B ASH TEST MACY11 27(732) 01-OCT-76 13:03 PAGE 64
DCKBIB.SRC CROSS REFERENCE TABLE -- USER SYMBOLS

| | | | | | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 852 | 869 | 886 | 903 | 920 | 937 | 954 | 971 | 988 | 1005 | 1022 | 1039 | 1056 |
| | 1073 | 1090 | 1107 | 1124 | 1141 | 1158 | 1175 | 1192 | 1209 | 1226 | 1243 | 1260 | 1277 |
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| | 1515 | 1532 | 1549 | 1566 | 1583 | 1600 | 1617 | 1634 | 1651 | 1668 | 1685 | 1702 | 1719 |
| | 1736 | 1753 | 1770 | 1787 | 1804 | 1821 | 1838 | 1855 | 1872 | 1889 | 1906 | 1923 | 1940 |
| | 1957 | 1974 | 1991 | 2008 | 2025 | 2042 | 2059 | 2076 | 2093 | 2110 | 2127 | 2144 | 2161 |
| | 2178 | 2195 | 2212 | 2229 | 2246 | 2263 | 2280 | 2297 | 2314 | 2331 | 2348 | 2365 | 2382 |
| | 2399 | 2416 | 2433 | 2450 | 2467 | 2484 | 2501 | 2518 | 2535 | 2552 | 2569 | 2586 | 2603 |
| | 2620 | 2637 | 2654 | 2671 | 2688 | 2705 | 2722 | 2739 | 2756 | 2773 | 2790 | 2807 | 2824 |
| | 2844 | 2861 | 2878 | 2895 | 2912 | 2933 | | | | | | | |
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| S1 = 013750 | 2754 | 2778 | 2968# | | | | | | | | | | |
| S2 = 013752 | 2969# | | | | | | | | | | | | |
| S3 = 013754 | 253# | 270# | 287# | 304# | 321# | 338# | 355# | 372# | 389# | 406# | 423# | 440# | 457# |
| T = 000001 | 474# | 491# | 508# | 525# | 542# | 559# | 576# | 593# | 610# | 627# | 644# | 661# | 678# |
| | 695# | 712# | 729# | 746# | 763# | 882# | 899# | 916# | 933# | 950# | 967# | 984# | 1001# |
| | 1018# | 1035# | 1052# | 1069# | 1086# | 1103# | 1120# | 1137# | 1256# | 1273# | 1290# | 1307# | 1324# |
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| | 244 | 247 | 262 | 265 | 279 | 282 | 296 | 299 | 313 | 316 | 330 | 333 | 347 |
| | 350 | 364 | 367 | 381 | 384 | 398 | 401 | 415 | 418 | 432 | 435 | 449 | 452 |
| | 466 | 469 | 483 | 486 | 500 | 503 | 517 | 520 | 534 | 537 | 551 | 554 | 568 |
| | 571 | 585 | 588 | 602 | 605 | 619 | 622 | 636 | 639 | 653 | 656 | 670 | 673 |
| | 687 | 690 | 704 | 707 | 721 | 724 | 738 | 741 | 755 | 758 | 772 | 775 | 789 |
| | 792 | 806 | 809 | 823 | 826 | 840 | 843 | 857 | 860 | 874 | 877 | 891 | 894 |
| | 908 | 911 | 925 | 928 | 942 | 945 | 959 | 962 | 976 | 979 | 993 | 996 | 1010 |
| | 1013 | 1027 | 1030 | 1044 | 1047 | 1061 | 1064 | 1078 | 1081 | 1095 | 1098 | 1112 | 1115 |
| | 1129 | 1132 | 1146 | 1149 | 1163 | 1166 | 1180 | 1183 | 1197 | 1200 | 1214 | 1217 | 1231 |
| | 1234 | 1248 | 1251 | 1265 | 1268 | 1282 | 1285 | 1299 | 1302 | 1316 | 1319 | 1333 | 1336 |
| | 1350 | 1353 | 1367 | 1370 | 1384 | 1387 | 1401 | 1404 | 1418 | 1421 | 1435 | 1438 | 1452 |
| | 1455 | 1469 | 1472 | 1486 | 1489 | 1503 | 1506 | 1520 | 1523 | 1537 | 1540 | 1554 | 1557 |
| | 1571 | 1574 | 1588 | 1591 | 1605 | 1608 | 1622 | 1625 | 1639 | 1642 | 1656 | 1659 | 1673 |
| | 1676 | 1690 | 1693 | 1707 | 1710 | 1724 | 1727 | 1741 | 1744 | 1758 | 1761 | 1775 | 1778 |
| | 1792 | 1795 | 1809 | 1812 | 1826 | 1829 | 1843 | 1846 | 1860 | 1863 | 1877 | 1880 | 1894 |
| | 1897 | 1911 | 1914 | 1928 | 1931 | 1945 | 1948 | 1962 | 1965 | 1979 | 1982 | 1996 | 1999 |
| | 2013 | 2016 | 2030 | 2033 | 2047 | 2050 | 2064 | 2067 | 2081 | 2084 | 2098 | 2101 | 2115 |
| | 2118 | 2132 | 2135 | 2149 | 2152 | 2166 | 2169 | 2183 | 2186 | 2200 | 2203 | 2217 | 2220 |
| | 2234 | 2237 | 2251 | 2254 | 2268 | 2271 | 2285 | 2288 | 2302 | 2305 | 2319 | 2322 | 2336 |
| | 2339 | 2353 | 2356 | 2370 | 2373 | 2387 | 2390 | 2404 | 2407 | 2421 | 2424 | 2438 | 2441 |
| | 2455 | 2458 | 2472 | 2475 | 2489 | 2492 | 2506 | 2509 | 2523 | 2526 | 2540 | 2543 | 2557 |
| | 2560 | 2574 | 2577 | 2591 | 2594 | 2608 | 2611 | 2625 | 2628 | 2642 | 2645 | 2659 | 2662 |
| | 2676 | 2679 | 2693 | 2696 | 2710 | 2713 | 2727 | 2730 | 2744 | 2747 | 2764 | 2767 | 2781 |
| | 2784 | 2798 | 2801 | 2815 | 2818 | 2832 | 2835 | 2849 | 2852 | 2866 | 2869 | 2883 | 2886 |
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| | |
|--------|----|
| .SERRO | 1* |
| .SERRT | 1* |
| .SMULT | 1* |
| .SPOWE | 1* |
| .SRAND | 1* |
| .SPODE | 1* |
| .SROOC | 1* |
| .SREAD | 1* |
| .SR2AZ | 1* |
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| .SSB2D | 1* |
| .SSB20 | 1* |
| .SSCOP | 1* |
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NOS

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|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| ASH | 207 | 224 | 241 | 259 | 276 | 293 | 310 | 327 | 344 | 361 | 378 | 395 | 412 | 429 | 446 |
| | 463 | 480 | 497 | 514 | 531 | 548 | 565 | 582 | 599 | 616 | 633 | 650 | 667 | 684 | 701 |
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| BEG | 182 | 187 | 194 | 197 | 210 | 213 | 227 | 230 | 244 | 247 | 262 | 265 | 279 | 282 | 296 |
| | 299 | 313 | 316 | 330 | 333 | 347 | 350 | 364 | 367 | 381 | 384 | 398 | 401 | 415 | 418 |
| | 432 | 435 | 449 | 452 | 466 | 469 | 483 | 486 | 500 | 503 | 517 | 520 | 534 | 537 | 551 |
| | 554 | 568 | 571 | 585 | 588 | 602 | 605 | 619 | 622 | 636 | 639 | 653 | 656 | 670 | 673 |
| | 687 | 690 | 704 | 707 | 721 | 724 | 738 | 741 | 755 | 758 | 772 | 775 | 789 | 792 | 806 |
| | 809 | 823 | 826 | 840 | 843 | 857 | 860 | 874 | 877 | 891 | 894 | 908 | 911 | 925 | 928 |
| | 942 | 945 | 959 | 962 | 976 | 979 | 993 | 996 | 1010 | 1013 | 1027 | 1030 | 1044 | 1047 | 1061 |
| | 1064 | 1078 | 1081 | 1095 | 1098 | 1112 | 1115 | 1129 | 1132 | 1146 | 1149 | 1163 | 1166 | 1180 | 1183 |
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| | 1319 | 1333 | 1336 | 1350 | 1353 | 1367 | 1370 | 1384 | 1387 | 1401 | 1404 | 1418 | 1421 | 1435 | 1438 |
| | 1452 | 1455 | 1469 | 1472 | 1486 | 1489 | 1503 | 1506 | 1520 | 1523 | 1537 | 1540 | 1554 | 1557 | 1571 |
| | 1574 | 1588 | 1591 | 1605 | 1608 | 1622 | 1625 | 1639 | 1642 | 1656 | 1659 | 1673 | 1676 | 1690 | 1693 |
| | 1707 | 1710 | 1724 | 1727 | 1741 | 1744 | 1758 | 1761 | 1775 | 1778 | 1792 | 1795 | 1809 | 1812 | 1826 |
| | 1829 | 1843 | 1846 | 1860 | 1863 | 1877 | 1880 | 1894 | 1897 | 1911 | 1914 | 1928 | 1931 | 1945 | 1948 |
| | 1962 | 1965 | 1979 | 1982 | 1996 | 1999 | 2013 | 2016 | 2030 | 2033 | 2047 | 2050 | 2064 | 2067 | 2081 |
| | 2084 | 2098 | 2101 | 2115 | 2118 | 2132 | 2135 | 2149 | 2152 | 2166 | 2169 | 2183 | 2186 | 2200 | 2203 |
| | 2217 | 2220 | 2234 | 2237 | 2251 | 2254 | 2268 | 2271 | 2285 | 2288 | 2302 | 2305 | 2319 | 2322 | 2336 |
| | 2339 | 2353 | 2356 | 2370 | 2373 | 2387 | 2390 | 2404 | 2407 | 2421 | 2424 | 2438 | 2441 | 2455 | 2458 |
| | 2472 | 2475 | 2489 | 2492 | 2506 | 2509 | 2523 | 2526 | 2540 | 2543 | 2557 | 2560 | 2574 | 2577 | 2591 |
| | 2594 | 2608 | 2611 | 2625 | 2628 | 2642 | 2645 | 2659 | 2662 | 2676 | 2679 | 2693 | 2696 | 2710 | 2713 |
| | 2727 | 2730 | 2744 | 2747 | 2764 | 2767 | 2781 | 2784 | 2798 | 2801 | 2815 | 2818 | 2832 | 2835 | 2849 |
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| BIT | 193 | 196 | | | | | | | | | | | | | |
| BPL | 185 | 2951 | 2954 | | | | | | | | | | | | |
| BR | 189 | 2940 | | | | | | | | | | | | | |
| CLR | 192 | 2949 | | | | | | | | | | | | | |
| CMP | 181 | 212 | 229 | 246 | 264 | 281 | 298 | 315 | 332 | 349 | 366 | 383 | 400 | 417 | 434 |
| | 451 | 468 | 485 | 502 | 519 | 536 | 553 | 570 | 587 | 604 | 621 | 638 | 655 | 672 | 689 |
| | 706 | 723 | 740 | 757 | 774 | 791 | 808 | 825 | 842 | 859 | 876 | 893 | 910 | 927 | 944 |
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| | 1471 | 1488 | 1505 | 1522 | 1539 | 1556 | 1573 | 1590 | 1607 | 1624 | 1641 | 1658 | 1675 | 1692 | 1709 |
| | 1726 | 1743 | 1760 | 1777 | 1794 | 1811 | 1828 | 1845 | 1862 | 1879 | 1896 | 1913 | 1930 | 1947 | 1964 |
| | 1981 | 1998 | 2015 | 2032 | 2049 | 2066 | 2083 | 2100 | 2117 | 2134 | 2151 | 2168 | 2185 | 2202 | 2219 |
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| | 2491 | 2508 | 2525 | 2542 | 2559 | 2576 | 2593 | 2610 | 2627 | 2644 | 2661 | 2678 | 2695 | 2712 | 2729 |
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| CMPB | 209 | 226 | 243 | 261 | 278 | 295 | 312 | 329 | 346 | 363 | 380 | 397 | 414 | 431 | 448 |
| | 465 | 482 | 499 | 516 | 533 | 550 | 567 | 584 | 601 | 618 | 635 | 652 | 669 | 686 | 703 |
| | 720 | 737 | 754 | 771 | 788 | 805 | 822 | 839 | 856 | 873 | 890 | 907 | 924 | 941 | 958 |
| | 975 | 992 | 1009 | 1026 | 1043 | 1060 | 1077 | 1094 | 1111 | 1128 | 1145 | 1162 | 1179 | 1196 | 1213 |
| | 1230 | 1247 | 1264 | 1281 | 1298 | 1315 | 1332 | 1349 | 1366 | 1383 | 1400 | 1417 | 1434 | 1451 | 1468 |
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| | 1740 | 1757 | 1774 | 1791 | 1808 | 1825 | 1842 | 1859 | 1876 | 1893 | 1910 | 1927 | 1944 | 1961 | 1978 |
| | 1995 | 2012 | 2029 | 2046 | 2063 | 2080 | 2097 | 2114 | 2131 | 2148 | 2165 | 2182 | 2199 | 2216 | 2233 |

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| | 2763 | 2780 | 2797 | 2814 | 2831 | 2848 | 2865 | 2882 | 2899 | 2916 | | | | | |
| HP L T | 162 | 167 | 171 | | | | | | | | | | | | |
| INC | 2944 | | | | | | | | | | | | | | |
| JMP | 178 | 2948 | 2963 | | | | | | | | | | | | |
| TSR | 2959 | | | | | | | | | | | | | | |
| MOV | 183 | 191 | 195 | 206 | 208 | 223 | 225 | 240 | 242 | 258 | 260 | 275 | 277 | 292 | 294 |
| | 309 | 311 | 326 | 328 | 343 | 345 | 360 | 362 | 377 | 379 | 394 | 396 | 411 | 413 | 428 |
| | 430 | 445 | 447 | 462 | 464 | 479 | 481 | 496 | 498 | 513 | 515 | 530 | 532 | 547 | 549 |
| | 564 | 566 | 581 | 583 | 598 | 600 | 615 | 617 | 632 | 634 | 649 | 651 | 666 | 668 | 683 |
| | 685 | 700 | 702 | 717 | 719 | 734 | 736 | 751 | 753 | 768 | 770 | 785 | 787 | 802 | 804 |
| | 819 | 821 | 836 | 838 | 853 | 855 | 870 | 872 | 887 | 889 | 904 | 906 | 921 | 923 | 938 |
| | 940 | 955 | 957 | 972 | 974 | 989 | 991 | 1006 | 1008 | 1023 | 1025 | 1040 | 1042 | 1057 | 1059 |
| | 1074 | 1076 | 1091 | 1093 | 1108 | 1110 | 1125 | 1127 | 1142 | 1144 | 1159 | 1161 | 1176 | 1178 | 1193 |
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| | 1329 | 1331 | 1346 | 1348 | 1363 | 1365 | 1380 | 1382 | 1397 | 1399 | 1414 | 1416 | 1431 | 1433 | 1448 |
| | 1450 | 1465 | 1467 | 1482 | 1484 | 1499 | 1501 | 1516 | 1518 | 1533 | 1535 | 1550 | 1552 | 1567 | 1569 |
| | 1584 | 1586 | 1601 | 1603 | 1618 | 1620 | 1635 | 1637 | 1652 | 1654 | 1669 | 1671 | 1686 | 1688 | 1703 |
| | 1705 | 1720 | 1722 | 1737 | 1739 | 1754 | 1756 | 1771 | 1773 | 1788 | 1790 | 1805 | 1807 | 1822 | 1824 |
| | 1839 | 1841 | 1856 | 1858 | 1873 | 1875 | 1890 | 1892 | 1907 | 1909 | 1924 | 1926 | 1941 | 1943 | 1958 |
| | 1960 | 1975 | 1977 | 1992 | 1994 | 2009 | 2011 | 2026 | 2028 | 2043 | 2045 | 2060 | 2062 | 2077 | 2079 |
| | 2094 | 2096 | 2111 | 2113 | 2128 | 2130 | 2145 | 2147 | 2162 | 2164 | 2179 | 2181 | 2196 | 2198 | 2213 |
| | 2215 | 2230 | 2232 | 2247 | 2249 | 2264 | 2266 | 2281 | 2283 | 2298 | 2300 | 2315 | 2317 | 2332 | 2334 |
| | 2349 | 2351 | 2366 | 2368 | 2383 | 2385 | 2400 | 2402 | 2417 | 2419 | 2434 | 2436 | 2451 | 2453 | 2468 |
| | 2470 | 2485 | 2487 | 2502 | 2504 | 2519 | 2521 | 2536 | 2538 | 2553 | 2555 | 2570 | 2572 | 2587 | 2589 |
| | 2604 | 2606 | 2621 | 2623 | 2638 | 2640 | 2655 | 2657 | 2672 | 2674 | 2689 | 2691 | 2706 | 2708 | 2723 |
| | 2725 | 2740 | 2742 | 2752 | 2753 | 2754 | 2760 | 2762 | 2777 | 2779 | 2794 | 2796 | 2811 | 2813 | 2828 |
| | 2830 | 2845 | 2847 | 2862 | 2864 | 2879 | 2881 | 2896 | 2898 | 2913 | 2915 | 2934 | 2935 | 2945 | 2956 |
| MOV B | 188 | 198 | 2952 | 2955 | | | | | | | | | | | |
| MCP | 2960 | 2961 | 2962 | | | | | | | | | | | | |
| RESET | 2958 | | | | | | | | | | | | | | |
| TSTB | 184 | 186 | 2950 | 2953 | | | | | | | | | | | |
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| .END | 2977 | | | | | | | | | | | | | | |
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| | 457 | 474 | 491 | 508 | 525 | 542 | 559 | 576 | 593 | 610 | 627 | 644 | 661 | 678 | 695 |
| | 712 | 729 | 746 | 763 | 780 | 797 | 814 | 831 | 848 | 865 | 882 | 899 | 916 | 933 | 950 |
| | 967 | 984 | 1001 | 1018 | 1035 | 1052 | 1069 | 1086 | 1103 | 1120 | 1137 | 1154 | 1171 | 1188 | 1205 |
| | 1222 | 1239 | 1256 | 1273 | 1290 | 1307 | 1324 | 1341 | 1358 | 1375 | 1392 | 1409 | 1426 | 1443 | 1460 |
| | 1477 | 1494 | 1511 | 1528 | 1545 | 1562 | 1579 | 1596 | 1613 | 1630 | 1647 | 1664 | 1681 | 1698 | 1715 |
| | 1732 | 1749 | 1766 | 1783 | 1800 | 1817 | 1834 | 1851 | 1868 | 1885 | 1902 | 1919 | 1936 | 1953 | 1970 |
| | 1987 | 2004 | 2021 | 2038 | 2055 | 2072 | 2089 | 2106 | 2123 | 2140 | 2157 | 2174 | 2191 | 2208 | 2225 |
| | 2242 | 2259 | 2276 | 2293 | 2310 | 2327 | 2344 | 2361 | 2378 | 2395 | 2412 | 2429 | 2446 | 2463 | 2480 |
| | 2497 | 2514 | 2531 | 2548 | 2565 | 2582 | 2599 | 2616 | 2633 | 2650 | 2667 | 2684 | 2701 | 2718 | 2735 |
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| .LIST | 1 | 154 | 171 | 218 | 235 | 252 | 253 | 270 | 287 | 304 | 321 | 338 | 355 | 372 | 389 |
| | 406 | 423 | 440 | 457 | 474 | 491 | 508 | 525 | 542 | 559 | 576 | 593 | 610 | 627 | 644 |
| | 661 | 678 | 695 | 712 | 729 | 746 | 763 | 780 | 797 | 814 | 831 | 848 | 865 | 882 | 899 |
| | 916 | 933 | 950 | 967 | 984 | 1001 | 1018 | 1035 | 1052 | 1069 | 1086 | 1103 | 1120 | 1137 | 1154 |
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| | 1426 | 1443 | 1460 | 1477 | 1494 | 1511 | 1528 | 1545 | 1562 | 1579 | 1596 | 1613 | 1630 | 1647 | 1664 |
| | 1681 | 1698 | 1715 | 1732 | 1749 | 1766 | 1783 | 1800 | 1817 | 1834 | 1851 | 1868 | 1885 | 1902 | 1919 |
| | 1936 | 1953 | 1970 | 1987 | 2004 | 2021 | 2038 | 2055 | 2072 | 2089 | 2106 | 2123 | 2140 | 2157 | 2174 |
| | 2191 | 2208 | 2225 | 2242 | 2259 | 2276 | 2293 | 2310 | 2327 | 2344 | 2361 | 2378 | 2395 | 2412 | 2429 |

| | | | | | | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 2446 | 2463 | 2480 | 2497 | 2514 | 2531 | 2548 | 2565 | 2592 | 2599 | 2616 | 2633 | 2650 | 2667 | 2684 |
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| .NLIST | 1 | 154 | 171 | 218 | 235 | 252 | 253 | 270 | 287 | 304 | 321 | 338 | 355 | 372 | 389 |
| | 406 | 423 | 440 | 457 | 474 | 491 | 508 | 525 | 542 | 559 | 576 | 593 | 610 | 627 | 644 |
| | 661 | 678 | 695 | 712 | 729 | 746 | 763 | 780 | 797 | 814 | 831 | 848 | 865 | 882 | 899 |
| | 916 | 933 | 950 | 967 | 984 | 1001 | 1018 | 1035 | 1052 | 1069 | 1086 | 1103 | 1120 | 1137 | 1154 |
| | 1171 | 1188 | 1205 | 1222 | 1239 | 1256 | 1273 | 1290 | 1307 | 1324 | 1341 | 1358 | 1375 | 1392 | 1409 |
| | 1426 | 1443 | 1460 | 1477 | 1494 | 1511 | 1528 | 1545 | 1562 | 1579 | 1596 | 1613 | 1630 | 1647 | 1664 |
| | 1681 | 1698 | 1715 | 1732 | 1749 | 1766 | 1783 | 1800 | 1817 | 1834 | 1851 | 1868 | 1885 | 1902 | 1919 |
| | 1936 | 1953 | 1970 | 1987 | 2004 | 2021 | 2038 | 2055 | 2072 | 2089 | 2106 | 2123 | 2140 | 2157 | 2174 |
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| | 2446 | 2463 | 2480 | 2497 | 2514 | 2531 | 2548 | 2565 | 2582 | 2599 | 2616 | 2633 | 2650 | 2667 | 2684 |
| .PAGE | 2701 | 2718 | 2735 | 2752 | 2772 | 2789 | 2806 | 2823 | 2840 | 2857 | 2874 | 2891 | 2908 | 2925 | |
| | 201 | 253 | 304 | 355 | 406 | 457 | 508 | 559 | 610 | 661 | 712 | 763 | 814 | 865 | 916 |
| | 967 | 1018 | 1069 | 1120 | 1171 | 1222 | 1273 | 1324 | 1375 | 1426 | 1477 | 1528 | 1579 | 1630 | 1681 |
| | 1732 | 1783 | 1834 | 1885 | 1936 | 1987 | 2038 | 2089 | 2140 | 2191 | 2242 | 2293 | 2344 | 2395 | 2446 |
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ERRORS DETECTED: 0
 DEFAULT GLOBALS GENERATED: 0

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 RUN-TIME: 31 40 3 SECONDS
 RUN-TIME RATIO: 137/75=1.8
 CORE USED: 33K (65 PAGES)

