```
PC      =%000007        R0      =%000000        R1      =%000001
R2      =%000002        R3      =%000003        R4      =%000004
R5      =%000005        R6      =%000006        R7      =%000007
SLINE   = ****** G       SP     =%000006        SUN        000000RG
SUNCTR  000302R         SUNTAB  000026R         SUNT0      000036R
SUNT1   000106R         SUNT2   000160R         SUNT3      000232R
SUN01   000014R          .      = 000304R

END ?
```

```
            ;*************************************************************
            ;
            ;                    SUBROUTINE SUN
            ;
            ;                    VERSION          1A
            ;
            ;                    BILL SEILER
            ;                    SEPT 6, 1974
            ;                    DRAW A SUN AT THE ORIGIN
            ;
   000000           R0=%0
   000001           R1=%1
   000002           R2=%2
   000003           R3=%3
   000004           R4=%4
   000005           R5=%5
   000006           R6=%6
   000007           R7=%7
   000006           SP=R6
   000007           PC=R7
                    .TITLE  SUN
                    .GLOBL  SUN,SLINE
   000000           .CSECT
000000 005367 SUN:  DEC     SUNCTR          ;IS CTR NEGATIVE?
       000276
000004 100003       BPL     SUN01           ;NO-THEN SKIP
000006 012767       MOV     #3,SUNCTR       ;YES-RESET SUN CTR
       000003
       000266
000014 016700 SUN01: MOV    SUNCTR,R0       ;GET CTR
       000262
000020 006300       ASL     R0              ;MULT BY 2
000022 000170'      JMP     @SUNTAB(R0)     ;DRAW CORRECT SUN
       000026
000026 000036'SUNTAB: SUNT0
000030 000106'       SUNT1
000032 000160'       SUNT2
000034 000232'       SUNT3
000036 012702 SUNT0: MOV    #2048.,R2       ;2048
       004000
000042 005003       CLR     R3              ;0
000044 012704       MOV     #-1024.,R4      ;-1024
       176000
000050 012705       MOV     #1774.,R5       ;-1174
       003356
000054 004767'      JSR     PC,SLINE        ;DRAW # 1 LINE OF TRIANGLE
       000000
000060 010204       MOV     R2,R4           ;-1024
000062 012705       MOV     #-1774.,R5      ;-1774
       174422
000066 004767'      JSR     PC,SLINE        ;DRAW # 2 LINE
       000000
000072 012704       MOV     #2048.,R4       ;2048
       004000
000076 005005       CLR     R5              ;0
```

```
000100 004767'        JSR      PC,SLINE        ;DRAW # 3 LINE
       000000

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000104 000207         RTS      PC              ;SUN TRIANGLE 0 DRAWN
000106 012702 SUNT1:  MOV      #1774.,R2       ;1774
       003356
000112 012703         MOV      #1024.,R3       ;1024
       002000
000116 012704         MOV      #-1774.,R4      ;-1774
       174422
000122 010305         MOV      R3,R5           ;1024
000124 004767'        JSR      PC,SLINE        ;DRAW # 1 LINE OF TRIANGLE
       000000
000130 005004         CLR      R4              ;0
000132 012705         MOV      #-2048.,R5      ;-2048
       174000
000136 004767'        JSR      PC,SLINE        ;DRAW # 2 LINE
       000000
000142 012704         MOV      #1774.,R4       ;1774
       003356
000146 012705         MOV      #1024.,R5       ;1024
       002000
000152 004767'        JSR      PC,SLINE        ;DRAW # 3 LINE
       000000
000156 000207         RTS      PC              ;SUN TRIANGLE 1 DRAWN
000160 012702 SUNT2:  MOV      #1024.,R2       ;1024
       002000
000164 012703         MOV      #1774.,R3       ;1774
       003356
000170 012704         MOV      #-2048.,R4      ;-2048
       174000
000174 005005         CLR      R5              ;0
000176 004767'        JSR      PC,SLINE        ;DRAW # 1 LINE OF TRIANGLE
       000000
000202 012704         MOV      #1024.,R4       ;1024
       002000
000206 012705         MOV      #-1774.,R5      ;-1774
       174422
000212 004767'        JSR      PC,SLINE        ;DRAW # 2 LINE
       000000
000216 010204         MOV      R2,R4           ;1024
000220 012705         MOV      #1774.,R5       ;1774
       003356
000224 004767'        JSR      PC,SLINE        ;DRAW # 3 LINE
       000000
000230 000207         RTS      PC              ;SUN TRIANGLE 2 DRAWN
000232 005002 SUNT3:  CLR      R2              ;0
000234 012703         MOV      #2048.,R3       ;2048
       004000
000240 012704         MOV      #-1774.,R4      ;-1774
       174422
000244 012705         MOV      #-1024.,R5      ;-1024
       176000
000250 004767'        JSR      PC,SLINE        ;DRAW # 1 LINE OF TRIANGLE
       000000
000254 012704         MOV      #1774.,R4       ;1774
       003356
000260 010305         MOV      R3,R5           ;-1024
000262 004767'        JSR      PC,SLINE        ;DRAW # 2 LINE
       000000

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000266 005004         CLR      R4              ;0
```

```
000270 012705          MOV      #2048,R5        ;2048
       004000
000274 004767/         JSR      PC,SLINE        ;DRAW # 3 LINE
       000000
000300 000207          RTS      PC              ;SUN TRIANGLE 3 DRAWN
000302 000000 SUNCTR:  .WORD    0
       000001          .END

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```

000000 ERRORS

PAL-11S   V003A

*S H

*B H

*L T

*T T