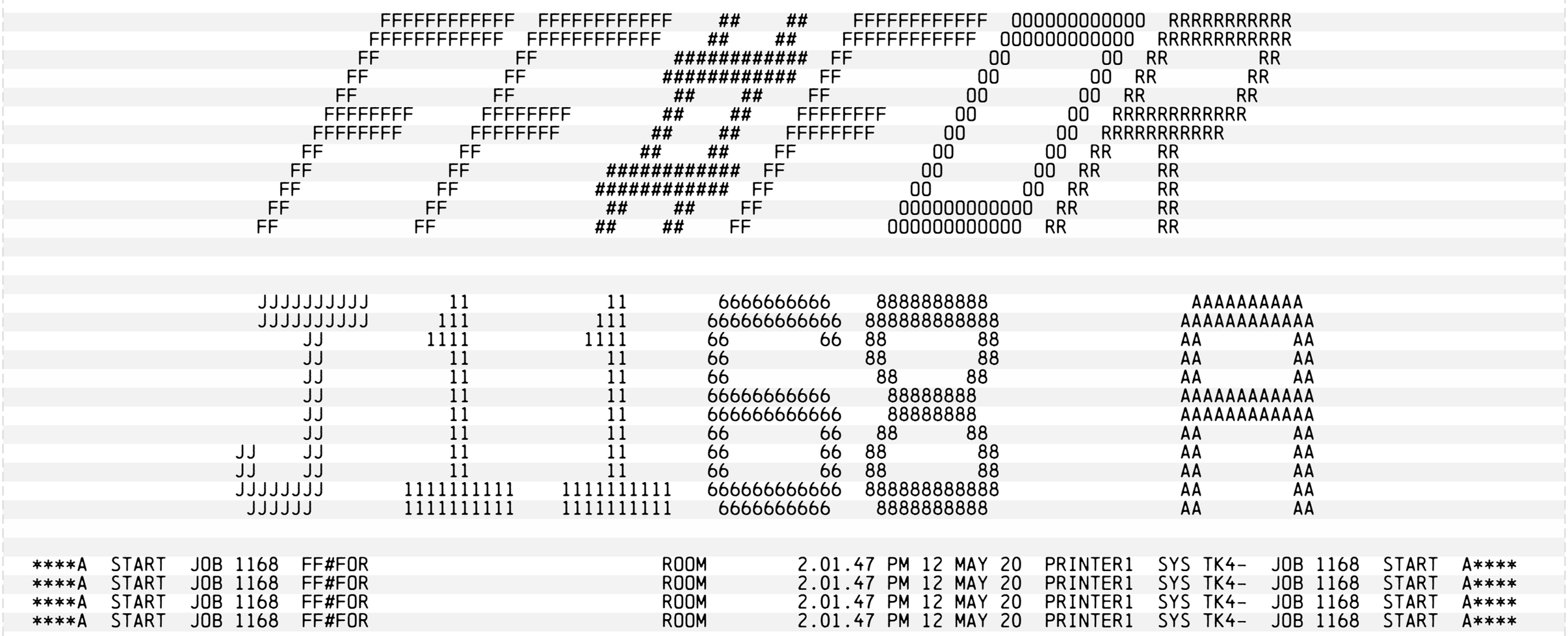

****A START JOB 1168 FF#FOR ROOM 2.01.47 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 START A****
****A START JOB 1168 FF#FOR ROOM 2.01.47 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 START A****
****A START JOB 1168 FF#FOR ROOM 2.01.47 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 START A****

J E S 2 J O B L O G

```
14.01.42 JOB 1168  $HASP373 FF#FOR   STARTED - INIT  1 - CLASS A - SYS TK4-
14.01.42 JOB 1168  IEF403I FF#FOR - STARTED - TIME=14.01.42
14.01.44 JOB 1168  IEFACTRT - STEPNAME  PROCSTEP  PROGRAM   RETCODE
14.01.44 JOB 1168  FF#FOR     FORT                IEKAA00   RC= 0000
14.01.47 JOB 1168  FF#FOR     GO                  LOADER    RC= 0000
14.01.47 JOB 1168  IEF404I FF#FOR - ENDED - TIME=14.01.47
14.01.47 JOB 1168  $HASP395 FF#FOR   ENDED

------ JES2 JOB STATISTICS ------

 12 MAY 20 JOB EXECUTION DATE

         6 CARDS READ

     1,123 SYSOUT PRINT RECORDS

         0 SYSOUT PUNCH RECORDS

      0.08 MINUTES EXECUTION TIME
```

```
1     //FF#FOR JOB CLASS=A,MSGCLASS=A,MSGLEVEL=(1,1),NOTIFY=HERC01,           JOB 1168
      //            USER=HERC01,PASSWORD=         GENERATED BY IKJEFF10
2     // EXEC FORTHCG,PARM.FORT='OPT=2,XREF',PARM.GO=MAP
3     XXFORT EXEC PGM=IEKAA00,REGION=228K
4     XXSYSPRINT DD SYSOUT=A
5     XXSYSPUNCH DD SYSOUT=B
6     XXSYSLIN DD DSNAME=&LOADSET,UNIT=SYSSQ,DISP=(MOD,PASS),
      XX SPACE=(400,(200,50),RLSE)
7     //SYSUT2 DD DSNAME=&SYSUT1,UNIT=SYSDA,SPACE=(1024,(200,20)),SEP=SYSLMOD
8     //SYSIN DD DSN=FATT.TEST.SOURCE(FF#FOR),DISP=SHR
9     XXGO EXEC PGM=LOADER,COND=(4,LT),
      XX PARM='LET,NORES,EP=MAIN'
10    XXSYSLIB DD DSNAME=SYS1.FORTLIB,DISP=SHR
11    XXSYSLOUT DD SYSOUT=A
12    XXSYSLIN DD DSNAME=&LOADSET,DISP=(OLD,DELETE)
13    XXFT05F001 DD DDNAME=SYSIN
14    XXFT06F001 DD SYSOUT=A
15    XXFT07F001 DD SYSOUT=B
16    //GO.SYSIN DD DSN=FATT.TEST.DATA(FF),DISP=SHR
```

```
IEF236I ALLOC. FOR FF#FOR FORT
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I JES2 ALLOCATED TO SYSPUNCH
IEF237I 190  ALLOCATED TO SYSLIN
IEF237I 170  ALLOCATED TO SYSUT2
IEF237I 242  ALLOCATED TO SYSIN
IEF142I FF#FOR FORT - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB01168.S00101                          SYSOUT
IEF285I   JES2.JOB01168.S00102                          SYSOUT
IEF285I   SYS20133.T140142.RA000.FF#FOR.LOADSET         PASSED        *------430
IEF285I   VOL SER NOS= WORK03.
IEF285I   SYS20133.T140142.RA000.FF#FOR.SYSUT1          DELETED       *-------66
IEF285I   VOL SER NOS= WORK01.
IEF285I   FATT.TEST.SOURCE                              KEPT          *--------3
IEF285I   VOL SER NOS= MV0001.
IEF373I STEP /FORT    / START 20133.1401
IEF374I STEP /FORT    / STOP  20133.1401 CPU    0MIN 00.47SEC SRB    0MIN 00.50SEC VIRT   292K SYS   204K
*********************************************************************************************************************
*     1. JOBSTEP OF JOB: FF#FOR      STEPNAME: FORT        PROGRAM NAME: IEKAA00    EXECUTED ON 12.05.20 FROM 14.01.42 TO 14.01.44 *
*         ELAPSED TIME  24:00:02,26                    CPU-IDENTIFIER:  TK4-           PAGE-IN:      0                          *
*             CPU TIME  00:00:00,97                VIRTUAL STORAGE USED:    292K       PAGE-OUT:     0                          *
*           CORR. CPU:  00:00:00,97   CPU TIME HAS BEEN CORRECTED BY  1 / 1,0  MULTIPLIER                                      *
*                                                                                                                             *
*     I/O OPERATION                                                                                                           *
*     NUMBER OF RECORDS READ VIA DD * OR DD DATA:      0                                                                      *
*     DMY.......0 DMY.......0 190.....430 170......66 242.......3                                                             *
*                                                                                                                             *
*                                        CHARGE FOR STEP (W/O SYSOUT):          1,61                                      *
*********************************************************************************************************************
IEF236I ALLOC. FOR FF#FOR GO
IEF237I 148  ALLOCATED TO SYSLIB
IEF237I JES2 ALLOCATED TO SYSLOUT
IEF237I 190  ALLOCATED TO SYSLIN
IEF237I 242  ALLOCATED TO FT05F001
IEF237I JES2 ALLOCATED TO FT06F001
IEF237I JES2 ALLOCATED TO FT07F001
IEF142I FF#FOR GO - STEP WAS EXECUTED - COND CODE 0000
IEF285I   SYS1.FORTLIB                                  KEPT          *-------81
IEF285I   VOL SER NOS= MVSRES.
IEF285I   JES2.JOB01168.S00103                          SYSOUT
IEF285I   SYS20133.T140142.RA000.FF#FOR.LOADSET         DELETED       *------431
IEF285I   VOL SER NOS= WORK03.
IEF285I   FATT.TEST.DATA                                KEPT          *--------2
IEF285I   VOL SER NOS= MV0001.
IEF285I   JES2.JOB01168.S00104                          SYSOUT
IEF285I   JES2.JOB01168.S00105                          SYSOUT
IEF373I STEP /GO      / START 20133.1401
IEF374I STEP /GO      / STOP  20133.1401 CPU    0MIN 02.37SEC SRB    0MIN 00.09SEC VIRT   332K SYS   212K
*********************************************************************************************************************
*     2. JOBSTEP OF JOB: FF#FOR      STEPNAME: GO          PROGRAM NAME: LOADER     EXECUTED ON 12.05.20 FROM 14.01.44 TO 14.01.47 *
*         ELAPSED TIME  24:00:02,84                    CPU-IDENTIFIER:  TK4-           PAGE-IN:      0                          *
*             CPU TIME  00:00:02,46                VIRTUAL STORAGE USED:    332K       PAGE-OUT:     0                          *
*           CORR. CPU:  00:00:02,46   CPU TIME HAS BEEN CORRECTED BY  1 / 1,0  MULTIPLIER                                      *
*                                                                                                                             *
*     I/O OPERATION                                                                                                           *
*     NUMBER OF RECORDS READ VIA DD * OR DD DATA:      0                                                                      *
*     148......81 DMY.......0 190.....431 242.......2 DMY.......0 DMY.......0                                                 *
*                                                                                                                             *
*                                        CHARGE FOR STEP (W/O SYSOUT):          4,10                                      *
*********************************************************************************************************************
IEF375I  JOB /FF#FOR  / START 20133.1401
IEF376I  JOB /FF#FOR  / STOP  20133.1401 CPU    0MIN 02.84SEC SRB    0MIN 00.59SEC
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C FIGURE FATTORIALI
               C IL VETTORE CON LE CIFRE DEL FATTORIALE È GLOBALE
   ISN 0002            COMMON C(8229)
   ISN 0003            INTEGER MAX,MIN,MODO,E/'E'/,G/'G'/,L/'L'/,O/'O'/,T/'T'/
   ISN 0004            LOGICAL*1 C
   ISN 0005            EXTERNAL LESA,LLOS,LOTT,LTRI,SESA,SLOS,SOTT,STRI
   ISN 0006            READ(5,100) MODO,MIN,MAX
   ISN 0007            IF((MODO.NE.G).AND.
                      &   (MODO.NE.T).AND.(MODO.NE.L).AND.(MODO.NE.E).AND.(MODO.NE.O))
                      &  CALL ERROR('MODO DEVE ESSERE SOLO G, T, L, E, O',35)
   ISN 0009            IF((MIN.LT.0).OR.(MAX.LT.0).OR.(MIN.GT.MAX))
                      &  CALL ERROR('LIMITI INCONSISTENTI',20)
   ISN 0011            IF((MODO.EQ.T).AND.(MAX.GT.1494).OR.
                      &   (MODO.EQ.L).AND.(MAX.GT.2545).OR.
                      &   (MODO.EQ.E).AND.(MAX.GT.2236).OR.
                      &   (MODO.EQ.O).AND.(MAX.GT.2739))
                      &  CALL ERROR('ECCEDE IL LIMITE DI 132 CARATTERI',33)
   ISN 0013            IF(MODO.EQ.G) CALL ESMP
   ISN 0015            IF(MODO.EQ.T) CALL TFOR(LTRI,STRI,MIN,MAX,'TRIANGOLO',9)
   ISN 0017            IF(MODO.EQ.L) CALL TFOR(LLOS,SLOS,MIN,MAX,'LOSANGA',7)
   ISN 0019            IF(MODO.EQ.E) CALL TFOR(LESA,SESA,MIN,MAX,'ESAGONO',7)
   ISN 0021            IF(MODO.EQ.O) CALL TFOR(LOTT,SOTT,MIN,MAX,'OTTAGONO',8)
   ISN 0023     100    FORMAT(A1,2(1XI4))
   ISN 0024            STOP
   ISN 0025            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS															
C	0002	0004														
E	0003	0003	0007	0011	0019											
G	0003	0003	0007	0013												
L	0003	0003	0007	0011	0017											
O	0003	0003	0007	0011	0021											
T	0003	0003	0007	0011	0015											
MAX	0003	0006	0009	0009	0011	0011	0011	0011	0015	0017	0019	0021				
MIN	0003	0006	0009	0009	0015	0017	0019	0021								
ESMP	0013															
LESA	0005	0019														
LLOS	0005	0017														
LOTT	0005	0021														
LTRI	0005	0015														
MODO	0003	0006	0007	0007	0007	0007	0007	0011	0011	0011	0011	0013	0015	0017	0019	0021
SESA	0005	0019														
SLOS	0005	0017														
SOTT	0005	0021														
STRI	0005	0015														
TFOR	0015	0017	0019	0021												
ERROR	0007	0009	0011													

```
 LABEL   DEFINED   REFERENCES
  100    0023      0006

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      24 ,PROGRAM SIZE =     1052

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  25K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
                C STAMPA USANDO STMP TUTTE LE FORME LFOR COMPRESE TRA MIN E MAX
    ISN 0002            SUBROUTINE TFOR(LFOR,STMP,MIN,MAX,FNAM,LNAM)
    ISN 0003            COMMON C(8229)
    ISN 0004            INTEGER FATT,LI,LMAX,LMIN,LN,LNC,LZF,MAX,MIN,N,NC,ZF,ZRFN
    ISN 0005            REAL LFOR,LR
    ISN 0006            LOGICAL*1 C
                C AMIN,AMAX,AN,ANC <= 9.999 AZF <= 999
    ISN 0007            LOGICAL*1 AMAX(5),AMIN(5),AN(5),ANC(5),AZF(3),FNAM(LNAM)
    ISN 0008            LOGICAL T1/.FALSE./,FF/.FALSE./
    ISN 0009            CALL I2A(MIN,LMIN,AMIN)
    ISN 0010            CALL I2A(MAX,LMAX,AMAX)
    ISN 0011            DO 10 N=MIN,MAX
    ISN 0012              NC=KMNT(N)
    ISN 0013              LR=LFOR(NC)
    ISN 0014              LI=LR
    ISN 0015              IF(LR.NE.LI) GO TO 10
    ISN 0017              T1=.TRUE.
    ISN 0018              CALL STF(AMIN,LMIN,AMAX,LMAX,FNAM,LNAM,FF)
    ISN 0019              FF=.TRUE.
    ISN 0020              CALL STMP(FATT(N))
    ISN 0021              CALL I2A(N,LN,AN)
    ISN 0022              CALL I2A(NC,LNC,ANC)
    ISN 0023              ZF=ZRFN(N)
    ISN 0024              CALL I2A(ZF,LZF,AZF)
    ISN 0025              CALL SFF(AN,LN,NC,ANC,LNC,ZF,AZF,LZF)
    ISN 0026        10    CONTINUE
    ISN 0027            IF(T1) RETURN
    ISN 0029            CALL STF(AMIN,LMIN,AMAX,LMAX,FNAM,LNAM,FF)
    ISN 0030            CALL SCEN('NESSUNO',7)
    ISN 0031            RETURN
    ISN 0032            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS					
C	0003	0006				
N	0004	0011	0012	0020	0021	0023
AN	0007	0021	0025			
FF	0008	0008	0018	0019	0029	
LI	0004	0014	0015			
LN	0004	0021	0025			
LR	0005	0013	0014	0015		
NC	0004	0012	0013	0022	0025	
T1	0008	0008	0017	0027		
ZF	0004	0023	0024	0025		
ANC	0007	0022	0025			
AZF	0007	0024	0025			
I2A	0009	0010	0021	0022	0024	
LNC	0004	0022	0025			
LZF	0004	0024	0025			
MAX	0002	0004	0010	0011		
MIN	0002	0004	0009	0011		
SFF	0025					
STF	0018	0029				
AMAX	0007	0010	0018	0029		
AMIN	0007	0009	0018	0029		
FATT	0004	0020				
FNAM	0002	0007	0018	0029		
KMNT	0012					
LFOR	0002	0005	0013			
LMAX	0004	0010	0018	0029		
LMIN	0004	0009	0018	0029		
LNAM	0002	0007	0018	0029		
SCEN	0030					
STMP	0002	0020				
TFOR	0002					
ZRFN	0004	0023				

```
 LABEL   DEFINED   REFERENCES
   10    0026      0011  0015

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      31 ,PROGRAM SIZE =      878

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  25K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C FATTORIALE DI N: RITORNA NUMERO DI CIFRE E LE CIFRE IN C (GLOBALE)
    ISN 0002            INTEGER FUNCTION FATT(N)
    ISN 0003            COMMON C(8229)
    ISN 0004            INTEGER I,M,N,NC,R
    ISN 0005            LOGICAL*1 C
    ISN 0006            NC=1
    ISN 0007            C(1)=1
    ISN 0008            IF(N.EQ.0) GO TO 50
    ISN 0010            M=N
    ISN 0011     10     R=0
    ISN 0012            DO 20 I=1,NC
    ISN 0013              R=C(I)*M+R
    ISN 0014              C(I)=MOD(R,10)
    ISN 0015              R=R/10
    ISN 0016     20     CONTINUE
    ISN 0017     30     IF(R.EQ.0) GO TO 40
    ISN 0019            NC=NC+1
    ISN 0020            C(NC)=MOD(R,10)
    ISN 0021            R=R/10
    ISN 0022            GO TO 30
    ISN 0023     40     M=M-1
    ISN 0024            IF(M.GT.1) GO TO 10
    ISN 0026     50     FATT=NC
    ISN 0027            RETURN
    ISN 0028            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS										
C	0003	0005	0007	0013	0014	0020					
I	0004	0012	0013	0014							
M	0004	0010	0013	0023	0023	0024					
N	0002	0004	0008	0010							
R	0004	0011	0013	0013	0014	0015	0015	0017	0020	0021	0021
NC	0004	0006	0012	0019	0019	0020	0026				
MOD	0014	0020									
FATT	0002	0026									

```
 LABEL   DEFINED   REFERENCES
   10    0011      0024
   20    0016      0012
   30    0017      0022
   40    0023      0017
   50    0026      0008

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      27 ,PROGRAM SIZE =      386

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C LATO TRIANGOLO COMPOSTO DA N CIFRE
   ISN 0002           REAL FUNCTION LTRI(N)
   ISN 0003           INTEGER N
   ISN 0004           LTRI=SQRT(FLOAT(N))
   ISN 0005           RETURN
   ISN 0006           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
N       0002  0003  0004
LTRI    0002  0004
SQRT    0004
FLOAT   0004

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       5 ,PROGRAM SIZE =      282

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C LATO LOSANGA COMPOSTA DA N CIFRE
    ISN 0002           REAL FUNCTION LLOS(N)
    ISN 0003           INTEGER N
    ISN 0004           LLOS=(SQRT(2.*N-1)+1)/2
    ISN 0005           RETURN
    ISN 0006           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
N       0002  0003  0004
LLOS    0002  0004
SQRT    0004

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       5 ,PROGRAM SIZE =      316

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C LATO ESAGONO COMPOSTO DA N CIFRE
   ISN 0002            REAL FUNCTION LESA(N)
   ISN 0003            INTEGER N
   ISN 0004            LESA=(SQRT(16.*N-7)+5)/8
   ISN 0005            RETURN
   ISN 0006            END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
N       0002  0003  0004
LESA    0002  0004
SQRT    0004

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       5 ,PROGRAM SIZE =      340

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C LATO OTTAGONO COMPOSTO DA N CIFRE
  ISN 0002           REAL FUNCTION LOTT(N)
  ISN 0003           INTEGER N
  ISN 0004           LOTT=(SQRT(7.*N-3)+5)/7
  ISN 0005           RETURN
  ISN 0006           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
N       0002  0003  0004
LOTT    0002  0004
SQRT    0004

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       5 ,PROGRAM SIZE =      324

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C KAMENETSKY: RITORNA IL NUMERO DI CIFRE DI N!
    ISN 0002           INTEGER FUNCTION KMNT(N)
    ISN 0003           INTEGER N
    ISN 0004           REAL C1/1.83787706640934548/,C2/4.60517018598809136/
    ISN 0005           IF(N.LT.2) GO TO 10
    ISN 0007           KMNT=((C1-2*N+ALOG(FLOAT(N))*(1+2*N))/C2)+1
    ISN 0008           RETURN
    ISN 0009     10    KMNT=1
    ISN 0010           RETURN
    ISN 0011           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS					
N	0002	0003	0005	0007	0007	0007
C1	0004	0004	0007			
C2	0004	0004	0007			
ALOG	0007					
KMNT	0002	0007	0009			
FLOAT	0007					

```
 LABEL   DEFINED   REFERENCES
   10    0009      0005

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      10 ,PROGRAM SIZE =      476

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
              C RITORNA IL NUMERO DI ZERI FINALI DI N!
   ISN 0002           INTEGER FUNCTION ZRFN(N)
   ISN 0003           INTEGER N,P,S,T
   ISN 0004           T=0
   ISN 0005           P=5
   ISN 0006     10    S=N/P
   ISN 0007           IF(S.GT.0) GO TO 20
   ISN 0009           ZRFN=T
   ISN 0010           RETURN
   ISN 0011     20    T=T+S
   ISN 0012           P=P*5
   ISN 0013           GO TO 10
   ISN 0014           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS				
N	0002	0003	0006		
P	0003	0005	0006	0012	0012
S	0003	0006	0007	0011	
T	0003	0004	0009	0011	0011
ZRFN	0002	0009			

```
 LABEL   DEFINED   REFERENCES
   10    0006      0013
   20    0011      0007

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      13 ,PROGRAM SIZE =      278

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
                C GLI ESEMPI TRATTI DAL LIBRO
     ISN 0002            SUBROUTINE ESMP
     ISN 0003            COMMON C(8229)
     ISN 0004            INTEGER FATT
     ISN 0005            LOGICAL*1 C
     ISN 0006            CALL STE
     ISN 0007            CALL STRI(FATT(12))
     ISN 0008            CALL SFE('9 CIFRE DI 12! NEL TESTO A PAGINA 35',36)
     ISN 0009            CALL STEFF
     ISN 0010            CALL STRI(FATT(105))
     ISN 0011            CALL SFE('169 CIFRE DI 105! FIGURA 10 A PAGINA 37',39)
     ISN 0012            CALL STEFF
     ISN 0013            CALL STRI(FATT(508))
     ISN 0014            CALL SFE('1.156 CIFRE DI 508! FIGURA 11 A PAGINA 38',41)
     ISN 0015            CALL STEFF
     ISN 0016            CALL SLOS(FATT(35))
     ISN 0017            CALL SFE('41 CIFRE DI 35! NEL TESTO ALLE PAGINE 37 E 38',45)
     ISN 0018            CALL STEFF
     ISN 0019            CALL SESA(FATT(477))
     ISN 0020            CALL SFE('1.073 CIFRE DI 477! FIGURA 12 A PAGINA 39',41)
     ISN 0021            CALL STEFF
     ISN 0022            CALL SOTT(FATT(2206))
     ISN 0023            CALL SFE('6.421 CIFRE DI 2.206! FIGURA 13 PAGINA 40',41)
     ISN 0024            RETURN
     ISN 0025            END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
C       0003  0005
SFE     0008  0011  0014  0017  0020  0023
STE     0006
ESMP    0002
FATT    0004  0007  0010  0013  0016  0019  0022
SESA    0019
SLOS    0016
SOTT    0022
STRI    0007  0010  0013
STEFF   0009  0012  0015  0018  0021

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      24 ,PROGRAM SIZE =      868

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA UNA LINEA LIN LUNGA LUN, CENTRATA
    ISN 0002           SUBROUTINE SCEN(LIN,LUN)
    ISN 0003           INTEGER B,CS,LUN
    ISN 0004           LOGICAL*1 LIN(LUN)
    ISN 0005           LOGICAL*1 BLANK/' '/
    ISN 0006           CS=(132-LUN)/2
    ISN 0007           WRITE(6,100) (BLANK,B=1,CS),LIN
    ISN 0008           RETURN
    ISN 0009     100   FORMAT(132A1)
    ISN 0010           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS			
B	0003	0007	0007	
CS	0003	0006	0007	
LIN	0002	0004	0007	
LUN	0002	0003	0004	0006
SCEN	0002			
BLANK	0005	0005	0007	

```
 LABEL   DEFINED   REFERENCES
  100    0009      0007

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       9 ,PROGRAM SIZE =      366

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C CONVERTE INTERO IN CARATTERI CON SEPARATORE DI MIGLIAIA
               C N.B.
               C  * FUNZIONA FINO A 9.999
               C  * ALOG10 DA PROBLEMI DI PRECISIONE
    ISN 0002            SUBROUTINE I2A(N,LN,A)
    ISN 0003            INTEGER I,LN,M,N
    ISN 0004            LOGICAL*1 A(LN),ZERO/'0'/,SEPM/'.'/
    ISN 0005            M=N
    ISN 0006            I=0
    ISN 0007     10     M=M/10
    ISN 0008            IF(M.EQ.0) GO TO 20
    ISN 0010            I=I+1
    ISN 0011            GO TO 10
    ISN 0012     20     LN=I+I/3+1
    ISN 0013            M=N
    ISN 0014            I=0
    ISN 0015     30     IF(I.NE.3) GO TO 40
    ISN 0017            A(LN-I)=SEPM
    ISN 0018            I=I+1
    ISN 0019     40     A(LN-I)=ZERO+MOD(M,10)
    ISN 0020            I=I+1
    ISN 0021            M=M/10
    ISN 0022            IF(M.GT.0) GO TO 30
    ISN 0024            RETURN
    ISN 0025            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS													
A	0002	0004	0017	0019										
I	0003	0006	0010	0010	0012	0012	0014	0015	0017	0018	0018	0019	0020	0020
M	0003	0005	0007	0007	0008	0013	0019	0021	0021	0022				
N	0002	0003	0005	0013										
LN	0002	0003	0004	0012	0017	0019								
I2A	0002													
MOD	0019													
SEPM	0004	0004	0017											
ZERO	0004	0004	0019											

LABEL	DEFINED	REFERENCES
10	0007	0011
20	0012	0008
30	0015	0022
40	0019	0015

```
*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      24 ,PROGRAM SIZE =      458

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C CREA UNA LINEA (DELLA FORMA) LUNGA LUN A PARTIRE DA NC E LA STAMPA
    ISN 0002           SUBROUTINE SLIN(LUN,NC)
    ISN 0003           COMMON C(8229)
    ISN 0004           INTEGER I,LUN,NC
    ISN 0005           LOGICAL*1 C
    ISN 0006           LOGICAL*1 LIN(132)
    ISN 0007           LOGICAL*1 ZERO/'0'/
    ISN 0008           DO 10 I=1,LUN
    ISN 0009             LIN(I)=ZERO+C(NC)
    ISN 0010             NC=NC-1
    ISN 0011     10    CONTINUE
    ISN 0012           CALL SCEN(LIN,LUN)
    ISN 0013           RETURN
    ISN 0014           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS				
C	0003	0005	0009		
I	0004	0008	0009		
NC	0002	0004	0009	0010	0010
LIN	0006	0009	0012		
LUN	0002	0004	0008	0012	
SCEN	0012				
SLIN	0002				
ZERO	0007	0007	0009		

```
 LABEL   DEFINED   REFERENCES
   10    0011      0008

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      13 ,PROGRAM SIZE =      446

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA IN FORMA DI TRIANGOLO DATO NUMERO DI CIFRE NC
    ISN 0002           SUBROUTINE STRI(NC)
    ISN 0003           INTEGER I,L,NC
    ISN 0004           REAL LTRI
    ISN 0005           L=2*LTRI(NC)
    ISN 0006           DO 10 I=1,L,2
    ISN 0007             CALL SLIN(I,NC)
    ISN 0008     10    CONTINUE
    ISN 0009           RETURN
    ISN 0010           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
I       0003  0006  0007
L       0003  0005  0006
NC      0002  0003  0005  0007
LTRI    0004  0005
SLIN    0007
STRI    0002
```

```
 LABEL   DEFINED   REFERENCES
   10    0008      0006

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       9 ,PROGRAM SIZE =      342

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA IN FORMA DI LOSANGA DATO NUMERO DI CIFRE NC
    ISN 0002           SUBROUTINE SLOS(NC)
    ISN 0003           INTEGER I,L,NC
    ISN 0004           REAL LLOS
    ISN 0005           L=2*LLOS(NC)
    ISN 0006           DO 10 I=1,L,2
    ISN 0007             CALL SLIN(I,NC)
    ISN 0008     10    CONTINUE
               C TEST PERCHÉ FORTRAN ESEGUE SEMPRE ALMENO UNA VOLTA I DO LOOP
    ISN 0009           IF(L.EQ.2) RETURN
    ISN 0011           DO 20 I=3,L,2
    ISN 0012             CALL SLIN(L-I,NC)
    ISN 0013     20    CONTINUE
    ISN 0014           RETURN
    ISN 0015           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS					
I	0003	0006	0007	0011	0012	
L	0003	0005	0006	0009	0011	0012
NC	0002	0003	0005	0007	0012	
LLOS	0004	0005				
SLIN	0007	0012				
SLOS	0002					

```
 LABEL   DEFINED   REFERENCES
   10    0008      0006
   20    0013      0011

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      14 ,PROGRAM SIZE =      384

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA IN FORMA DI ESAGONO DATO NUMERO DI CIFRE NC
    ISN 0002           SUBROUTINE SESA(NC)
    ISN 0003           INTEGER I,L,L1,L2,NC
    ISN 0004           REAL LESA
    ISN 0005           L=LESA(NC)
    ISN 0006           L1=2*L-1
    ISN 0007           DO 10 I=0,L1,2
    ISN 0008             CALL SLIN(L+I,NC)
    ISN 0009     10    CONTINUE
               C TEST PERCHÉ FORTRAN ESEGUE SEMPRE ALMENO UNA VOLTA I DO LOOPS
    ISN 0010           IF(L.EQ.1) RETURN
    ISN 0012           L2=L1+L
    ISN 0013           DO 20 I=3,L1,2
    ISN 0014             CALL SLIN(L2-I,NC)
    ISN 0015     20    CONTINUE
    ISN 0016           RETURN
    ISN 0017           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS					
I	0003	0007	0008	0013	0014	
L	0003	0005	0006	0008	0010	0012
L1	0003	0006	0007	0012	0013	
L2	0003	0012	0014			
NC	0002	0003	0005	0008	0014	
LESA	0004	0005				
SESA	0002					
SLIN	0008	0014				

```
 LABEL   DEFINED   REFERENCES
   10    0009      0007
   20    0015      0013

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      16 ,PROGRAM SIZE =      410

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA IN FORMA DI OTTAGONO DATO NUMERO DI CIFRE NC
    ISN 0002           SUBROUTINE SOTT(NC)
    ISN 0003           INTEGER I,L,L1,L2
    ISN 0004           REAL LOTT
    ISN 0005           L=LOTT(NC)
    ISN 0006           L1=2*L-1
    ISN 0007           DO 10 I=0,L1,2
    ISN 0008             CALL SLIN(L+I,NC)
    ISN 0009     10    CONTINUE
               C TEST PERCHÉ FORTRAN ESEGUE SEMPRE ALMENO UNA VOLTA I DO LOOP
    ISN 0010           IF(L.EQ.1) RETURN
    ISN 0012           L2=L1+L-1
    ISN 0013           DO 20 I=2,L
    ISN 0014             CALL SLIN(L2,NC)
    ISN 0015     20    CONTINUE
    ISN 0016           DO 30 I=2,L1,2
    ISN 0017             CALL SLIN(L2-I,NC)
    ISN 0018     30    CONTINUE
    ISN 0019           RETURN
    ISN 0020           END
```

SYMBOL	INTERNAL STATEMENT NUMBERS						
I	0003	0007	0008	0013	0016	0017	
L	0003	0005	0006	0008	0010	0012	0013
L1	0003	0006	0007	0012	0016		
L2	0003	0012	0014	0017			
NC	0002	0005	0008	0014	0017		
LOTT	0004	0005					
SLIN	0008	0014	0017				
SOTT	0002						

```
 LABEL   DEFINED   REFERENCES
   10    0009      0007
   20    0015      0013
   30    0018      0016

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      19 ,PROGRAM SIZE =      454

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA TESTATA ESEMPI, PRIMA SALTA UNA PAGINA
   ISN 0002          SUBROUTINE STEFF
   ISN 0003          WRITE(6,100)
               C STAMPA TESTATA ESEMPI, SENZA PRIMA SALTARE UNA PAGINA
   ISN 0004          ENTRY STE
   ISN 0005          CALL SCEN('MARTIN GARDNER, SHOW DI MAGIA MATEMATICA',40)
   ISN 0006          CALL SCEN(' ',1)
   ISN 0007          RETURN
   ISN 0008     100  FORMAT('1')
   ISN 0009          END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
STE     0004
SCEN    0005  0006
STEFF   0002
```

```
 LABEL   DEFINED   REFERENCES
  100    0008      0003

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       8 ,PROGRAM SIZE =      368

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
                C STAMPA TESTATA FORME
    ISN 0002            SUBROUTINE STF(AMIN,LMIN,AMAX,LMAX,FNAM,LNAM,FF)
    ISN 0003            INTEGER B,CS,LMAX,LMIN,LNAM
    ISN 0004            LOGICAL*1 AMAX(LMAX),AMIN(LMIN),FNAM(LNAM)
    ISN 0005            LOGICAL*1 S1(12)/'I','N',' ','F','O','R','M','A',' ','D','I',' '/
    ISN 0006            LOGICAL*1 S2(4)/' ','D','A',' '/
    ISN 0007            LOGICAL*1 S3(9)/'!',' ','F','I','N','O',' ','A',' '/
    ISN 0008            LOGICAL*1 S4/'!'/
    ISN 0009            LOGICAL*1 BLANK/' '/
    ISN 0010            LOGICAL FF
    ISN 0011            IF(FF) WRITE(6,100)
    ISN 0013            CS=(132-(12+LMIN+4+LMAX+9+LNAM+1))/2
    ISN 0014            WRITE(6,200) (BLANK,B=1,CS),S1,FNAM,S2,AMIN,S3,AMAX,S4
    ISN 0015            CALL SCEN(' ',1)
    ISN 0016            RETURN
    ISN 0017     100    FORMAT('1')
    ISN 0018     200    FORMAT(132A1)
    ISN 0019            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS			
B	0003	0014	0014	
CS	0003	0013	0014	
FF	0002	0010	0011	
S1	0005	0005	0014	
S2	0006	0006	0014	
S3	0007	0007	0014	
S4	0008	0008	0014	
STF	0002			
AMAX	0002	0004	0014	
AMIN	0002	0004	0014	
FNAM	0002	0004	0014	
LMAX	0002	0003	0004	0013
LMIN	0002	0003	0004	0013
LNAM	0002	0003	0004	0013
SCEN	0015			
BLANK	0009	0009	0014	

```
 LABEL   DEFINED   REFERENCES
  100    0017      0011
  200    0018      0014

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      18 ,PROGRAM SIZE =      724

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  25K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
               C STAMPA FONDO ESEMPI: LINEA LIN LUNGA LUN
    ISN 0002           SUBROUTINE SFE(LIN,LUN)
    ISN 0003           INTEGER LUN
    ISN 0004           LOGICAL*1 LIN(LUN)
    ISN 0005           CALL SCEN(' ',1)
    ISN 0006           CALL SCEN(LIN,LUN)
    ISN 0007           RETURN
    ISN 0008           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
LIN     0002  0004  0006
LUN     0002  0003  0004  0006
SFE     0002
SCEN    0005  0006

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       7 ,PROGRAM SIZE =      290

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
                C STAMPA FONDO FORME
    ISN 0002            SUBROUTINE SFF(AN,LN,NC,ANC,LNC,ZF,AZF,LZF)
    ISN 0003            INTEGER B,CS,LN,LNC,LZF,NC,ZF
    ISN 0004            LOGICAL*1 AN(LN),ANC(LNC),AZF(LZF)
    ISN 0005            LOGICAL*1 S1(5)/'!',' ','D','I',' '/
    ISN 0006            LOGICAL*1 S2(6)/' ','C','I','F','R','A'/
    ISN 0007            LOGICAL*1 S3(5)/' ','C','O','N',' '/
    ISN 0008            LOGICAL*1 S4(12)/' ','Z','E','R','O',' ','F','I','N','A','L','E'/
    ISN 0009            LOGICAL*1 BLANK/' '/,E/'E'/,I/'I'/
    ISN 0010            IF(NC.GT.1) S2(6)=E
    ISN 0012            IF(ZF.NE.0) GO TO 10
    ISN 0014            CS=(132-(LN+5+LNC+6))/2
    ISN 0015            WRITE(6,100) (BLANK,B=1,CS),AN,S1,ANC,S2
    ISN 0016            RETURN
    ISN 0017     10     IF(ZF.EQ.1) GO TO 20
    ISN 0019            S4(5)=I
    ISN 0020            S4(12)=I
    ISN 0021     20     CS=(132-(LN+5+LNC+6+5+LZF+12))/2
    ISN 0022            WRITE(6,100) (BLANK,B=1,CS),AN,S1,ANC,S2,S3,AZF,S4
    ISN 0023            RETURN
    ISN 0024     100    FORMAT(/132A1)
    ISN 0025            END
```

SYMBOL	INTERNAL STATEMENT NUMBERS				
B	0003	0015	0015	0022	0022
E	0009	0009	0010		
I	0009	0009	0019	0020	
AN	0002	0004	0015	0022	
CS	0003	0014	0015	0021	0022
LN	0002	0003	0004	0014	0021
NC	0002	0003	0010		
S1	0005	0005	0015	0022	
S2	0006	0006	0010	0015	0022
S3	0007	0007	0022		
S4	0008	0008	0019	0020	0022
ZF	0002	0003	0012	0017	
ANC	0002	0004	0015	0022	
AZF	0002	0004	0022		
LNC	0002	0003	0004	0014	0021
LZF	0002	0003	0004	0021	
SFF	0002				
BLANK	0009	0009	0015	0022	

```
 LABEL   DEFINED   REFERENCES
   10    0017      0012
   20    0021      0017
  100    0024      0015  0022

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =      24 ,PROGRAM SIZE =      914

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  25K BYTES OF CORE NOT USED
```

```
          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF
              C RIPORTA MESSAGGIO DI ERRORE E MUORE
   ISN 0002           SUBROUTINE ERROR(ERR,LUN)
   ISN 0003           INTEGER LUN
   ISN 0004           LOGICAL*1 ERR(LUN)
   ISN 0005           WRITE(6,100) ERR
   ISN 0006           STOP
   ISN 0007     100   FORMAT(1X'ERRORE: ',124A1)
   ISN 0008           END
```

```
SYMBOL  INTERNAL STATEMENT NUMBERS
ERR     0002  0004  0005
LUN     0002  0003  0004
ERROR   0002
```

```
 LABEL   DEFINED   REFERENCES
  100    0007      0005

*OPTIONS IN EFFECT*      NAME=  MAIN,OPT=02,LINECNT=50,SIZE=0000K,

*OPTIONS IN EFFECT*      SOURCE,EBCDIC,NOLIST,NODECK,LOAD,NOMAP,NOEDIT,NOID,XREF

*STATISTICS*     SOURCE STATEMENTS =       7 ,PROGRAM SIZE =      304

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  29K BYTES OF CORE NOT USED

*STATISTICS*  NO  DIAGNOSTICS THIS STEP
```

VS LOADER

OPTIONS USED - PRINT,MAP,NOLET,CALL,RES,NOTERM,SIZE=307200,NAME=**GO

NAME	TYPE	ADDR	NAME	TYPE	ADDR	NAME	TYPE	ADDR	NAME	TYPE	ADDR	NAME	TYPE	ADDR
MAIN	SD	AC010	TFOR	SD	AC430	FATT	SD	AC7A0	LTRI	SD	AC928	LLOS	SD	ACA48
LESA	SD	ACB88	LOTT	SD	ACCE0	KMNT	SD	ACE28	ZRFN	SD	AD008	ESMP	SD	AD120
SCEN	SD	AD488	I2A	SD	AD5F8	SLIN	SD	AD7C8	STRI	SD	AD988	SLOS	SD	ADAE0
SESA	SD	ADC60	SOTT	SD	ADE00	STEFF	SD	ADFC8	STE	LR	AE0F4	STF	SD	AE138
SFE	SD	AE410	SFF	SD	AE538	ERROR	SD	AE8D0	IHCECOMH*	SD	AEA00	IBCOM# *	LR	AEA00
FDIOCS# *	LR	AEABC	INTSWTCH*	LR	AF946	IHCCOMH2*	SD	AF968	SEQDASD *	LR	AFCE0	IHCSSQRT*	SD	AFFC8
SQRT *	LR	AFFC8	IHCSLOG *	SD	B0110	ALOG10 *	LR	B0110	ALOG *	LR	B0128	IHCFCVTH*	SD	B02C8
ADCON# *	LR	B02C8	FCVAOUTP*	LR	B0372	FCVLOUTP*	LR	B0402	FCVZOUTP*	LR	B055A	FCVIOUTP*	LR	B090E
FCVEOUTP*	LR	B0E10	FCVCOUTP*	LR	B102A	INT6SWCH*	LR	B1313	IHCEFIOS*	SD	B1480	FIOCS# *	LR	B1480
FIOCSBEP*	LR	B1486	IHCFIOS2*	SD	B23A8	IHCEFNTH*	SD	B28D8	ARITH# *	LR	B28D8	ADJSWTCH*	LR	B2C74
IHCUOPT *	SD	B2E20	IHCERRM *	SD	B3120	ERRMON *	LR	B3120	IHCERRE *	LR	B3138	IHCUATBL*	SD	B3700
IHCETRCH*	SD	B3D38	IHCTRCH *	LR	B3D38	ERRTRA *	LR	B3D40	$BLANKCOM	CM	B3FC8			

TOTAL LENGTH 9FDD
ENTRY ADDRESS AC010

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

4
790
01600

9 CIFRE DI 12! NEL TESTO A PAGINA 35

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

1
081
39675
8240290
900504101
30580032964
9720646107774
902579144176636
57322653190990515
3326984536526808240
339776398934872029657
99387290781343681609728
000000000000000000000000000

169 CIFRE DI 105! FIGURA 10 A PAGINA 37

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

5
119
90692
7755879
266003615
25819185379
7984360677298
470133958906714
46011174633964398
5839112233165772956
548496166254935516795
14565079522588677608012
64234890456621474531263 49
82579003643715864326648 2002
88113505694916924243929121639
79951233206802053881498295 36720
69754658933810512002000567 4705145
28641409978978956631664608452253922
21821393220912608897117102175009345 98
65954648792945921473500720076910566 7735
54074289548655659977226200540160335058131
83653842355107140714910988358127365889 22795
51145646142125477380490785307338448488 84090
75030962875912509521999525292598359880846423952
39312041118182809792135447776447515384352087746 03
08847711603222365116443941922000207356732518015 1958
35354728897604905269289015307797618984464654042934912
78827334798256169555312161070502714012594598752495 08169
44001332739531688700083391176448328498761907508834 3797786
47371945157918046252226969546616811434035461815792968273198
25456256137050498342385445577026945363852921453460 80336071424
28916011172084901890324904752912842288646776426787 7861568498090
42964480000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000

1.156 CIFRE DI 508! FIGURA 11 A PAGINA 38

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

1
033
31479
6638614
492966665
1337523
20000
000
0

41 CIFRE DI 35! NEL TESTO ALLE PAGINE 37 E 38

17108972589718074
1439528307936299026
080765545554532458183
43255130543516432376912
4663791911119657860822050
367340495642348613717749611
38104459104482535212494659899
5225079402598873366451131040234
240130493689852679573590918519290
66647636392705738600295487428650940
0535103538524596394743595531728001643
083783948745781956212836911156587085000
40781396853030778257813849856692950471963
5089328018573725755534194119396813233357487
709737509271413007324171020350516977549843435
61187933295519151457453789138048055187827977590
7750007855795139817496078270462761613125177420579
97170554688538703689036095806399241086011592997
020790226888203087101533653915806041722653430
0377642434651424325601245917031000886439794
86942002854170097571338930915447098888372
333024657251637441276280296188483408232
2723195014038951851520634322622612616
12431271509190879459978732133255390
601413833379281814639023615443036
2338368861798856260050552801204
22598617062894203619648023806
809643832836096000000000000
0000000000000000000000000
00000000000000000000000
000000000000000000000
0000000000000000000
00000000000000000

1.073 CIFRE DI 477! FIGURA 12 A PAGINA 39

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

1025729611602273508352741640301
162679407322869608383074471138746
30490176947592788989158028363440992
4881004274871081412845389545578617964
937451453403559961733083620099625538065
4101039659834503565368860495487402860478 4
69354148014000089523545388054909084099598 61
660246045191650260507136760688118903350996713
21823947514423961017742558259080494678177458085
2586022822207646670820883488582338159458352125708
362194967520635351099568538807160144980504808697217
60361821401601138846975754268977469634297805191393877
0721740965493361497666505546284509191953032898888959567
069201586371013497509110063361133485051253334853981163412
07851202228866097513788527648919064612804715051516533550808
562886414713844874352100211354890944141784747305560820504722 8
05088850600235183138570770659737548619628958220445820463922641 9
399886858016918887408232420746556303099664346828476487830123696 90
094967957371372203250296393498993877523759310227500062677134279301 7
571237823459954555639364520012107232014386673952152555563687059868597
3056169912831827577851169067100910594405442994822587776925018077293908 9
548246823108591574535820331454367565683946527972069750110941288640845632 5
45241014810037478042605488099780985318518053610889761155563060494227945217 9
842966862406524689941350364742428684536653496239258447227152978610946528335 33
624307631721402302570347358518280966813285139998664703794197875277746829284769 5
60364062161400151178184511808887577945934155755460548427158194168340876384052036 1
2317089802679592284739463562755799075427185404569645507568161299009770651570933758 5
3609457155707951999956996602370489306141334822832959732146934986498711106505143423006
463954096916259897686557876127375781093939500600724947477213915033139433655578405917439
66529210437027529365792843517778279323319868406572635522503159691924609965063914289434510
7019821565442168516926969752389318995661246814055912699808919159203294055178987900314759208
044250649506799948940775857149279794048804929644048992801163241712802869085457193120652508 8
064121807071137121677449341845165865466242141990195474891407133031783500805767353146146556 1
27685156339205215766181619988790980279065204895071157548877821476268883356395986913260866 62
859156176356126307492231618205540861651264183359064769867920642953553448979005478974664504 6
75415959134064942787816411726605777724967469784514726586914279622043225711710005464696391 93
27909011592758474841281148579344988470634222702775596020592699905270771829523888893331365 92
51122591112144611219605585830853009008577286730014579086054809879313916348612996253589631 46
935487728588364656252759400019584575081524614653698944034853719233106239723455849588535113 1
048631919075448574370805514181625328542382067099815430125712164718158073684124743330290929 1
897830472988375052809410568546893350104341420290731372559087553185989370206588967784938840 4
140934597393336483525540996508222234107460739494255303635849787702751918944646429029251474 2
889471906919734461426473532557640536474689054401369252483289902621855316309262940507330743 2
588323787925755322371527363381215974560114201708654604769369744950798619754522560084960750 8
422561411058421273836188463910667327890298978853702778717390323435789704377362637963391970 8
265031768266762554758258777574702713968427990171769251534721794071833097228102240602057695 5
192310933408339244690610778905972222102469468106346131530737255608210630637269442487341906 9
096434038953066354973305247363115652964832280307335443428144802301797955430270401875634836 8
823598785933503406587669254158247637553267624078996323013459193993684907577284419283028267 3
594737453314952204397946388953320915997964080962368759387006749195148181276744448327937200 7
247997999591872670609899126556217458170997828381705688528963155929078318585714493410063190 8
934630200094424330424502583053336796678616816776294551834824585410205473301236730602126569 9
714441274496819176365724054932016483081835869405802223004571257406858066606395252393390166 7
723022496319355796115616936004676693558141915192602416705391178318541281717430585334380067 9
191406919080315800698652661404810569942216826405774948133368384573626071552517099259029227 4
451264265576546553112125376441569372873641593109196874492343154423365346403681216829396295 4
976729921077087018108985989230367068085171978378534820022962044889664718102372494991593736 3
812572498373003634685827721877076810719393224395941146613075583124238948926153797306851203
322290855575473709093996070107127292520618857271135373268881441650225976675198622030876225 4
014767313741358410174753496119934988913875167301452504143008568794253434982853236595599058 6

3059290311067608656677397188828409975102079430788883571949249071704661577344739732272034246
37104435122049746259745064632630405327181489715562072507013420213784243184193841952049019
389152859513288157006180759969996691548238462575683756080195840926147215172703045410726
1571221590491814008464517752380714664838663797936798266141064998973891352888615965540
98255595359708203960431881516899044902069946858812271164189344778402447747132779673
726734254206089602373228992235406035343758920286285382782483616919760583195041901
0786025652398432473377918786067668522964693581938161825647192576364825381753604
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675458930454317426880599440649253835182559049134680784113291349169302482017
3803165103045083309241752027861990414465716910212856690048340212801066566
71488714187828459473979416544321600570091801616015052259641365801993579
244504186187559237535573796932130060786723802037406586217527166133087
0930181945058128239446205417863686242419793225560961759772203435083
01381359157531361456783661440683946003945726994356641215113291016
158631457857141765191030701808660529027628234464429604630089014
8953434120066141769048632529168891605980149568222227367224697
13346971247706153220894993220460346012675956565924985137787
348016849747358045070400788629399424736338350610968331170
0768456704000000000000000000000000000000000000000000000
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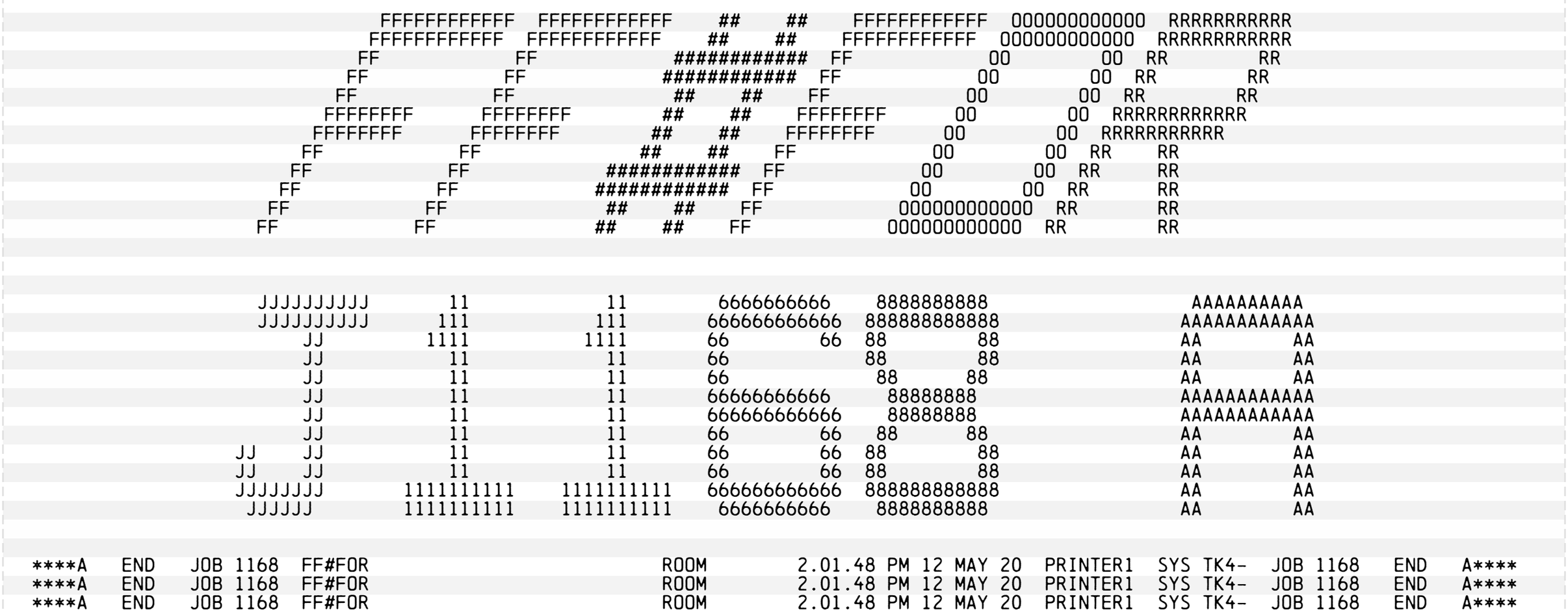
6.421 CIFRE DI 2.206! FIGURA 13 PAGINA 40



****A END JOB 1168 FF#FOR ROOM 2.01.48 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 END A****
****A END JOB 1168 FF#FOR ROOM 2.01.48 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 END A****
****A END JOB 1168 FF#FOR ROOM 2.01.48 PM 12 MAY 20 PRINTER1 SYS TK4- JOB 1168 END A****