```
          FFFFFFFFFFFF  FFFFFFFFFFFF     ##    ##     FFFFFFFFFFFF  000000000000  RRRRRRRRRR
          FFFFFFFFFFFF  FFFFFFFFFFFF     ##    ##     FFFFFFFFFFFF  000000000000  RRRRRRRRRRRR
            FF            FF           ############   FF             00      00  RR        RR
            FF            FF           ############   FF             00      00  RR        RR
            FF            FF             ##    ##      FF            00      00  RR        RR
          FFFFFFFF      FFFFFFFF         ##    ##      FFFFFFFF      00      00  RRRRRRRRRRRR
          FFFFFFFF      FFFFFFFF         ##    ##      FFFFFFFF      00      00  RRRRRRRRRR
            FF            FF             ##    ##      FF            00      00  RR    RR
            FF            FF           ############    FF            00      00  RR    RR
            FF            FF           ############    FF          000000000000  RR        RR
            FF            FF             ##    ##       FF         000000000000  RR        RR


          JJJJJJJJJJ        11           444          11      555555555555              AAAAAAAAAA
          JJJJJJJJJJ        111          4444         111     555555555555            AAAAAAAAAAAA
            JJ            1111          44  44       1111      55                      AA        AA
            JJ              11          44  44         11      55                      AA        AA
            JJ              11          44  44         11      55                      AA        AA
            JJ              11        4444444444       11      555555555              AAAAAAAAAAAA
            JJ              11        44444444444      11      5555555555             AAAAAAAAAAAA
            JJ              11              44         11            55               AA        AA
      JJ    JJ              11              44         11            55               AA        AA
      JJ    JJ              11              44         11            55               AA        AA
      JJJJJJJJ         1111111111           44      1111111111   555555555555         AA        AA
      JJJJJJ           1111111111           44      1111111111   55555555555          AA        AA


****A  START  JOB 1415  FF#FOR                    ROOM          7.47.14 PM 21 MAY 20  PRINTER1  SYS TK4-  JOB 1415  START  A****
****A  START  JOB 1415  FF#FOR                    ROOM          7.47.14 PM 21 MAY 20  PRINTER1  SYS TK4-  JOB 1415  START  A****
****A  START  JOB 1415  FF#FOR                    ROOM          7.47.14 PM 21 MAY 20  PRINTER1  SYS TK4-  JOB 1415  START  A****
****A  START  JOB 1415  FF#FOR                    ROOM          7.47.14 PM 21 MAY 20  PRINTER1  SYS TK4-  JOB 1415  START  A****
```

```
                         J E S 2   J O B   L O G

 19.47.09 JOB 1415  $HASP373 FF#FOR   STARTED - INIT  1 - CLASS A - SYS TK4-
 19.47.09 JOB 1415  IEF403I FF#FOR - STARTED - TIME=19.47.09
 19.47.12 JOB 1415  IEFACTRT - STEPNAME  PROCSTEP  PROGRAM   RETCODE
 19.47.12 JOB 1415  FF#FOR    FORT                 IEKAA00   RC= 0000
 19.47.14 JOB 1415  FF#FOR    GO                   LOADER    RC= 0000
 19.47.14 JOB 1415  IEF404I FF#FOR - ENDED - TIME=19.47.14
 19.47.14 JOB 1415  $HASP395 FF#FOR   ENDED


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


  21 MAY 20 JOB EXECUTION DATE

         6 CARDS READ

     1,119 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 1415
           //             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))
    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 180  ALLOCATED TO SYSLIN
IEF237I 140  ALLOCATED TO SYSUT2
IEF237I 242  ALLOCATED TO SYSIN
IEF142I FF#FOR FORT - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB01415.SO0101                     SYSOUT
IEF285I   JES2.JOB01415.SO0102                     SYSOUT
IEF285I   SYS20142.T194709.RA000.FF#FOR.LOADSET    PASSED          *------430
IEF285I   VOL SER NOS= WORK02.
IEF285I   SYS20142.T194709.RA000.FF#FOR.SYSUT1     DELETED         *-------66
IEF285I   VOL SER NOS= WORK00.
IEF285I   FATT.TEST.SOURCE                         KEPT            *--------3
IEF285I   VOL SER NOS= MVO001.
IEF373I STEP /FORT    / START 20142.1947
IEF374I STEP /FORT    / STOP  20142.1947 CPU    0MIN 00.43SEC SRB   0MIN 00.49SEC VIRT   292K SYS   204K
************************************************************************************************************************
*     1. JOBSTEP OF JOB: FF#FOR     STEPNAME: FORT      PROGRAM NAME: IEKAA00    EXECUTED ON 21.05.20 FROM 19.47.09 TO 19.47.12 *
*        ELAPSED TIME   00:00:02,22                CPU-IDENTIFIER:  TK4-          PAGE-IN:      0                  *
*            CPU TIME   00:00:00,92        VIRTUAL STORAGE USED:    292K          PAGE-OUT:     0                  *
*     I/O OPERATION                                                                                               *
*     NUMBER OF RECORDS READ VIA DD * OR DD DATA:      0                                                          *
*     DMY.......0 DMY.......0 180.....430 140......66 242.......3                                                 *
*                                                                                                                 *
*                                      CHARGE FOR STEP (W/O SYSOUT):        1,53                                  *
************************************************************************************************************************
IEF236I ALLOC. FOR FF#FOR GO
IEF237I 148  ALLOCATED TO SYSLIB
IEF237I JES2 ALLOCATED TO SYSLOUT
IEF237I 180  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.JOB01415.SO0103                     SYSOUT
IEF285I   SYS20142.T194709.RA000.FF#FOR.LOADSET    DELETED         *------431
IEF285I   VOL SER NOS= WORK02.
IEF285I   FATT.TEST.DATA                           KEPT            *--------2
IEF285I   VOL SER NOS= MVO001.
IEF285I   JES2.JOB01415.SO0104                     SYSOUT
IEF285I   JES2.JOB01415.SO0105                     SYSOUT
IEF373I STEP /GO      / START 20142.1947
IEF374I STEP /GO      / STOP  20142.1947 CPU    0MIN 02.35SEC SRB   0MIN 00.08SEC VIRT   332K SYS   208K
************************************************************************************************************************
*     2. JOBSTEP OF JOB: FF#FOR     STEPNAME: GO        PROGRAM NAME: LOADER     EXECUTED ON 21.05.20 FROM 19.47.12 TO 19.47.14 *
*        ELAPSED TIME   00:00:02,84                CPU-IDENTIFIER:  TK4-          PAGE-IN:      0                  *
*            CPU TIME   00:00:02,43        VIRTUAL STORAGE USED:    332K          PAGE-OUT:     0                  *
*     I/O OPERATION                                                                                               *
*     NUMBER OF RECORDS READ VIA DD * OR DD DATA:      0                                                          *
*     148......81 DMY.......0 180.....431 242.......2 DMY.......0 DMY.......0                                     *
*                                                                                                                 *
*                                      CHARGE FOR STEP (W/O SYSOUT):        4,05                                  *
************************************************************************************************************************
IEF375I  JOB /FF#FOR  / START 20142.1947
IEF376I  JOB /FF#FOR  / STOP  20142.1947 CPU    0MIN 02.78SEC SRB   0MIN 00.57SEC
```

```
          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=O2,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=O2,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
          573226531909905155
         3326984536526808240
        3397763989348720296577
       993872907813436816099728
      00000000000000000000000000
```

169 CIFRE DI 105! FIGURA 10 A PAGINA 37

```
                                5
                               119
                              90692
                             7755879
                            266003615
                           25819185379
                          7984360677298
                         470133958906714
                        46011174633964398
                       5839112233165772956
                      548496166254935516795
                     14565079522588677608012
                    6423489045662147453126349
                   825790036437158643266482002
                  88113505694916924243929121639
                 7995123320680205388149829536720
                697546589338105120020005674705145
               28641409978978956631664608452253922
              2182139322091260889711710217500934598
             659546487929459214735007200769105667735
            54074289548655659977226200540160335058131
           8365384235510714071491098835812736588922795
          511456461421254773804907853073384484888784090
         75030962875912509521999525292598359880846423952
        393120411181280979213544777644751538435208774603
       088477116032223651164439419220002073567325180151958
      3535472889760490526928901530779761898446654042934912
     7882733479825616955531216107050271401259459875249508169
    440013327395316887000833911764483284987619075088343797786
   473719455157918046252226969546616811434035461815792968273198
  2545625613705049834238544557702694536385292145346080336071424
 28916011172084901890324904752912842288647764267877861568498090
4296448000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000
```

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

MARTIN GARDNER, SHOW DI MAGIA MATEMATICA

```
       17108972589718074
      1439528307936299026
     0807655455545532458183
    43255130543516432376912
   466379191111119657860822050
  36734049564234861371749611
 381044591044825352124946599899
5225079402598873366451131040234
240130493689852679573590918519290
666476363927057386002954877428650940
0535103538524596394743595531728001643
08378394874578195621283691156587085000
40781396853030778257813849856692950471963
50893280185737325755534194119396813233357487
70973750927141300732417102035051697754584343435
6118793329551915154574537891380480555187827977590
7750007855795139817496078270462761613125177420579
9717055468853870368903609580639924108601115922997
02079022688820308710153365391580604172265343430
037764243465142432560124591703100088643979794
86942002854170097571338930915447098888372
333024657251637441276280296188448834083232
27231950140389518515206343226222612616
12431271509190879459978732133255390
601413833379281814639023615443036
23383688617988562600505552801204
22598617062894203619648023806
809643832836096000000000000
00000000000000000000000
000000000000000000000
0000000000000000000
00000000000000000
000000000000000
```

1.073 CIFRE DI 477! FIGURA 12 A PAGINA 39

```
1025729611602273508352741640301
1626794073228696083830744711138746
3049017694759278898915802836344 0992
48810042748710814128453894555786 17964
93745145340355996173308362009962 5538065
41010396598345035653688604954874 028604784
69354148014000089523545388054909 08409959861
66024604519165026050713676068811 8903350996713
21823947514423961017742558259080 4946781 77458085
25860228222076466708208834885823 381594458352125708
36219496752063535109956853880716 0144980504808697217
60361821401601138846975754268977 4696342978051 91393877
07217409654933614976665055462845 09191953032898888959567
06920158637101349750911006336113 34850512533348539811 63412
07851202228866097513788527648919 0646128047150515165335 50808
56288641471384487435210021135489 09441178474730556082050 47228
05088850600235183138570770659737 5486196289582204458204639226419
39988685801691888740823242074655 63030996643468284764878301236 9690
09496795737137220325029639349899 38775237593102275000626771342793017
57123782345995455563936452001210 72320143866739521525555636870 59868597
30561699128318275778511690671009 105944054429948225877769250180772939089
54824682310859157453582033145436 756568394652797206975011094128 86408456325
45241014810037478042605488099780 98531851805361088976115556306049 42279452179
84296686240652468994135036474242 86845366534962392584472271529786109 4652833533
62430763172140230257034735851828 0966812851399986647037941978752777468292847695
60364062161400151178184511808887 5779459341557554605484271581941683408763840520361
23170898026795922847394635627557 99075427185404569645507568161299009770651 5709337585
36094571557079519999569966023704 893061413348228329597321469349864987111065 05143423006
46395409691625989768655787612737 5781093939500600724947477213915033139433655578405917439
66529210437027529365792843517778 27932331986840657263552250315969192460996506391428 9434510
70198215654421685169269697523893 18995661246814055912699808919159203294055178987900314759208
04425064950679994894077585714927 97940488049296440489928011632417128028690854571931206525088
06412180707113712167744934184516 58654662421419901954748914071330317835008057673531461465561
27685156339205215766181619988790 9082790652048950711575488778214762688833563959869 1326086662
85915617635612630749223161820554 086165126418335906476986792064295355344897900547897 46645046
75415959134064942787816411726605 7777249674697845147265869142796220432257117100054646 9639193
27909011592758474841281148579344 98847063422270277559602059269990527077182952388889333136592
51122591112144611219605585830853 009008577286730014579086054809879313916348612996253 58963146
93548772858836465625275940001958 4575081524614653698944034853719233106239723455849588 5351131
04863191907544857437080551418162 53285423820670998154301257121647181580736841247433302909291
89783047298837505280941056854689 3350104341420290731372559087553185989370206588967784 9388404
14093459739333648352554099650822 2234107460739494255303635849787702751918944646429029 2514742
88947190691973446142647353255764 05364746899454401369252483289902621855316309262940507 3307432
58832378792575532237152736338121 597456011420170865460476936974495079861975452250008496 07508
42256141105842127383618846391066 732789029897885370277871739032343578970437736263796339 19708
26503176826676255475825877757470 271396842799017176925153472179407183309722810224060020 576955
19231093340833924469061077890597 222210246946810634613153073725560821063063726944248734 19069
09643403895306635497330524736311 5652964832280307335443428144802301797955430270401 87563 48368
82359878593350340658766925415824 7637553267624078996323013459193936849075772844192830 282673
59473745331495220439794638895332 091599796408096236875938700674919514818127674444832 79372007
24799799959187267060989912655621 7458170997828381705688528963155929078318585714493410 0631908
93463020009442433042450258305333 679667861681677294551834824585410205473301236730602 1265699
71444127424191763657240549320164 830818358694058022230045712574068580666063952523933 901667
72302249631935579611561693600467 669355814191519260241670539117831854128171743058533 43800679
19140691908031580069865266140481 056994221682640577494813336838457362607155251709925 90292274
45126426557654655311212537644156 937287364159310919687449234315442336534640368121682 93962954
97672992107708701810898598923036 706808517197837853482002296204488966471810237249499 15937363
81257249837300363468582772187770 768107193932243959411466130755831242389489261537973 06851203
32229085557547370909399607010712 729252061885727113537326888144165022597667519862203 08762254
01476731374135841017475349611993 498891387516730145250414300856879425343498285323659 55990586
```

305929031106760865667739718882840997510207943078888357194924907170466157734473973227203424 6
371044351220497462597450646326304053271814897155620725070134202137842431841938419520490 19
389152859513288157006180759969996691548238462575683756080195840926147215172703045410726
15712215904918140084645177523807146648386637979367982661410649989738913528886159655 40
9825559535970820396043188151689904490206994685881227116418934477840244774713277967 3
726734254206008960237322899223540603534375892028628538278248361691976058319504190 1
07860256523984324733779187860676685229646935819381618256471925736482538175360 4
0323846220232748615177218230689215914707652006205351888559595139276619165991 6
675458930454317426880599440649253835182559049134680784113291349169302482017
380316510304508330924175202786199041446571691021285669004834021280106656 6
71488714187828459473979416544321600570091801616015052259641365801993579
244504186187559237535573796932130060786723802037406586217527166133087
093018194505812823944620541786368624241979322556096175977220343508 3
01381359157531361456783661440683946003945726994356641215113291016
158631457857141765191030701808660529027628234464429604630089014
8953434120066141769048632529168891605980149568222227367224697
13346971247706153220894993220460346012675956565924985137787
34801684974735804507040078862939942473633835061096833117 0
076845670400000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000
000000000000000000000000000000000000000000
00000000000000000000000000000000000000000
0000000000000000000000000000000000000000

6.421 CIFRE DI 2.206! FIGURA 13 PAGINA 40

```
        FFFFFFFFFFFF   FFFFFFFFFFFF     ##     ##      FFFFFFFFFFFF  000000000000  RRRRRRRRRR
        FFFFFFFFFFFF   FFFFFFFFFFFF     ##     ##      FFFFFFFFFFFF  000000000000  RRRRRRRRRRRR
          FF             FF           ###########     FF              00      00  RR        RR
          FF             FF           ###########     FF              00      00  RR        RR
          FF             FF             ##     ##     FF              00      00  RR        RR
          FFFFFFFF       FFFFFFFF       ##     ##     FFFFFFFF        00      00  RRRRRRRRRRRR
          FFFFFFFF       FFFFFFFF       ##     ##     FFFFFFFF        00      00  RRRRRRRRRR
          FF             FF             ##     ##     FF              00      00  RR      RR
          FF             FF           ###########     FF              00      00  RR      RR
          FF             FF           ###########     FF              00      00  RR      RR
          FF             FF             ##     ##     FF            000000000000  RR      RR
          FF             FF             ##     ##     FF            000000000000  RR      RR


        JJJJJJJJJJ        11            444          11       555555555555              AAAAAAAAAA
        JJJJJJJJJJ        111           4444         111      555555555555            AAAAAAAAAAAA
          JJ             1111          44  44        1111     55                      AA        AA
          JJ              11            44  44        11      55                      AA        AA
          JJ              11           44    44       11      55                      AA        AA
          JJ              11          4444444444      11      555555555              AAAAAAAAAAAA
          JJ              11          44444444444     11      5555555555             AAAAAAAAAAAA
          JJ              11               44         11             55              AA        AA
     JJ   JJ              11               44         11             55              AA        AA
     JJ   JJ              11               44         11             55              AA        AA
        JJJJJJJ          1111111111         44       1111111111   555555555555       AA        AA
        JJJJJJ           1111111111         44       1111111111    55555555555       AA        AA


  ****A    END    JOB 1415   FF#FOR                       ROOM      7.47.15 PM 21 MAY 20   PRINTER1  SYS TK4-   JOB 1415   END    A****
  ****A    END    JOB 1415   FF#FOR                       ROOM      7.47.15 PM 21 MAY 20   PRINTER1  SYS TK4-   JOB 1415   END    A****
  ****A    END    JOB 1415   FF#FOR                       ROOM      7.47.15 PM 21 MAY 20   PRINTER1  SYS TK4-   JOB 1415   END    A****
  ****A    END    JOB 1415   FF#FOR                       ROOM      7.47.15 PM 21 MAY 20   PRINTER1  SYS TK4-   JOB 1415   END    A****
```