```
// LOG PRINTER
// READER MFCU1
// DATE 120410
// FORMS LINES-66
// LOG PRINTER
// LOG ON
// NOHALT
*
// CALL $RPG,F1
```

```
SYSTEM/3 MODEL 10 DISK       RPGII  VERSION 15, MODIFICATION LEVEL 00         12/04/10

            H008  008                                                        TRIG

0001        FINPUT   IP         96            MFCU1                         TRIG
0002        FOUTPUT  O          96     OF     PRINTER                       TRIG

0003        E                    LINE    1  26 96                            TRIG

0004        IINPUT   NS  01                                                  TRIG
0005        I                                    1  96 ZERO                  TRIG

0006        C  N01                SETON                      01             PRIM
0007        C   01                SETON                      90
0008        C   01 90             EXCPT
0009        C   01                SETOF                      90
0010        C   01                SETON                      91
0011        C           ADD       TAG
0012        C   01      1         ADD  X         X       20
0013        C   01                MOVE LINE,X    PRINT  96
0014        C   01                EXCPT
0015        C   01 91             SETOF                      91
0016        C   01      X         COMP 26                    69
0017        C   01 69             GOTO ADD
0018        C  N23                SETON                      23             TRIG
0019        C   23                EXCPT                                     TRIG
0020        C   23                SETOF                      23             TRIG
0021        C  N08                SETON                      08
0022        C  N30                SETON                      30
0023        C           CYCLE     TAG                                       TRIG
0024        C   01      DEGREE    MULT .01745329 RADIAN 159                 TRIG
0025        C   01      RADIAN    MULT RADIAN    SQUARE 159                 TRIG
0026        C   01      SQUARE    MULT RADIAN    CUBE   159                 TRIG
0027        C   01      CUBE      MULT RADIAN    FOURTH 159                 TRIG
0028        C   01      FOURTH    MULT RADIAN    FIFTH  159                 TRIG
0029        C   01      FIFTH     MULT RADIAN    SIXTH  159                 TRIG
0030        C   01      SIXTH     MULT RADIAN    SEV    159                 TRIG
0031        C   01      SEV       MULT RADIAN    EIGTH  159                 TRIG
0032        C   01      EIGTH     MULT RADIAN    NINE   159                 TRIG
0033        C   01      NINE      MULT RADIAN    TEN    159                 TRIG
0034        C   01      TEN       MULT RADIAN    ELEV   159                 TRIG
            C*COMPUTE SINE VALUE                                            TRIG
0035        C   01                Z-ADDRADIAN    SINE   159                 TRIG
0036        C   01      CUBE      DIV  6         TERM1  159                 TRIG
0037        C   01      SINE      SUB  TERM1     SINE                       TRIG
0038        C   01      FIFTH     DIV  120       TERM1                      TRIG
0039        C   01      SINE      ADD  TERM1     SINE                       TRIG
0040        C   01      SEV       DIV  5040      TERM1                      TRIG
0041        C   01      SINE      SUB  TERM1     SINE                       TRIG
0042        C   01      NINE      DIV  362880    TERM1                      TRIG
0043        C   01      SINE      ADD  TERM1     SINE                       TRIG
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0044       C   01      ELEV      DIV  39916800  TERM1                          TRIG
0045       C   01      SINE      SUB  TERM1     SINE                           TRIG
0046       C   01                Z-ADDSINE      SINE1   64H                    TRIG
           C*COMPUTE COSINE VALUE                                              TRIG
0047       C   01                Z-ADD1         COS    159                     TRIG
0048       C   01      SQUARE    DIV  2         TERM1                          TRIG
0049       C   01      COS       SUB  TERM1     COS                            TRIG
0050       C   01      FOURTH    DIV  24        TERM1                          TRIG
0051       C   01      COS       ADD  TERM1     COS                            TRIG
0052       C   01      SIXTH     DIV  720       TERM1                          TRIG
0053       C   01      COS       SUB  TERM1     COS                            TRIG
0054       C   01      EIGTH     DIV  40320     TERM1                          TRIG
0055       C   01      COS       ADD  TERM1     COS                            TRIG
0056       C   01      TEN       DIV  3628800   TERM1                          TRIG
0057       C   01      COS       SUB  TERM1     COS                            TRIG
0058       C   01                Z-ADDCOS       COS1   154H                    TRIG
0059       C   01      .00005    ADD  RADIAN    RADIAN                         TRIG
0060       C   01                Z-ADDRADIAN    RADIA   64                     TRIG
           C*COMPUTE TANGENT VALUE                                             TRIG
0061       C   01      0         COMP COS                      10               TRIG
0062       C   01 10             GOTO BPS                                       TRIG
0063       C   01      SINE      DIV  COS       TAN    159                     TRIG
0064       C   01      .00005    ADD  TAN       TAN1   154                     TRIG
0065       C           BPS       TAG                                           TRIG
           C*COMPUTE COTANGENT VALUE                                           TRIG
0066       C   01      0         COMP SINE                     11               TRIG
0067       C   01 11             GOTO BPS1                                      TRIG
0068       C   01      COS       DIV  SINE      COT    159                     TRIG
0069       C   01      .00005    ADD  COT       COT1   154                     TRIG
0070       C           BPS1      TAG                                           TRIG
           C*COMPUTE SECANT VALUE                                              TRIG
0071       C   01 10             GOTO SP                                        TRIG
0072       C   01      1         DIV  COS       SEC    159                     TRIG
0073       C   01      .00005    ADD  SEC       SEC1   154                     TRIG
0074       C           SP        TAG                                           TRIG
           C*COMPUTE COSECANT VALUE                                            TRIG
0075       C   01 11             GOTO TP                                        TRIG
0076       C   01      1         DIV  SINE      CSC    159                     TRIG
0077       C   01      .00005    ADD  CSC       CSC1   154                     TRIG
0078       C           TP        TAG                                           TRIG
0079       C   01      90        COMP DEGREE                    10             TRIG
0080       C   OF                SETON                       56               TRIG
0081       C   01                EXCPT                                          TRIG
0082       C   56                SETOF                       56               TRIG
0083       C   01      090       COMP DEGREE                      02            TRIG
0084       C   01      1         ADD  DEGREE    DEGREE  30                      TRIG
0085       C  N02                GOTO CYCLE                                     TRIG
0086       C   02                SETON                     LR                   TRIG



0087       OOUTPUT  T 33     02                                                 TRIG
0088       O                                  54 'END  OF  JOB'                  TRIG
0089       O        T   6006 02                                                 TRIG
0090       O                                  50 '    '                          TRIG
0091       O        T   6006 02                                                 TRIG
0092       O                                  50 '    '                          TRIG
0093       O        T   6006 02                                                 TRIG
0094       O                                  50 '    '                          TRIG
0095       O        E 0107   91                                                 TRIG
0096       O       OR 01     69                                                 TRIG
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0097       O                         PRINT     96                                TRIG
0098       O        E 1235   23N30                                               TRIG
0099       O                                   56 'TRIGONOMETRIC  TABLE'        TRIG
0100       O        E 02     23N30                                               TRIG
0101       O                                    7 'DEGREE'                      TRIG
0102       O                                   15 'RADIAN'                      TRIG
0103       O                                   24 'SINE'                        TRIG
0104       O                                   38 'COSINE'                      TRIG
0105       O                                   52 'TANGENT'                     TRIG
0106       O                                   68 'COTANGENT'                   TRIG
0107       O                                   80 'SECANT'                      TRIG
0108       O                                   95 'COSECANT'                    TRIG
0109       O        E 01     01    30                                            TRIG
0110       O                         CSC1  J   96
0111       O                    11             95 'INFINITY'
0112       O                         SEC1  J   81                                TRIG
0113       O                    10             81 '    INFINITY '               TRIG
0114       O                         COT1  J   68                                TRIG
0115       O                    11             67 'INFINITY'                    TRIG
0116       O                         TAN1  J   52                                TRIG
0117       O                    10             52 '    INFINITY '               TRIG
0118       O                         COS1  J   38                                TRIG
0119       O                         SINE1 J   25                                TRIG
0120       O                         RADIA J   15                                TRIG
0121       O                         DEGREEJ   06                                TRIG


**                                                                        TRIG
                  *************   **********          ****           ******
                  *************   *         *         ****          *
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       ***         **      **      **      **      **             **                      **
       ***         **      **      **      **      **********     **********              **
       ***         **      **      *********       **********     **********      **********
```

```
 INDICATORS USED
        LR OF 01 02 08 10 11 23 30 56 69 90 91

RG 314 UNREFERENCED FIELD NAMES
 STMT#  NAME
  0005 ZERO

  FIELD NAMES USED
 STMT#  NAME  DEC  LGTH  DISP
  0012 X       0   002   0161
  0013 PRINT       096   015F
  0024 RADIAN  9   015   0170
  0025 SQUARE  9   015   017F
  0026 CUBE    9   015   018E
  0027 FOURTH  9   015   019D
  0028 FIFTH   9   015   01AC
  0029 SIXTH   9   015   01BB
  0030 SEV     9   015   01CA
  0031 EIGTH   9   015   01D9
  0032 NINE    9   015   01E8
  0033 TEN     9   015   01F7
  0034 ELEV    9   015   0206
  0035 SINE    9   015   0215
  0036 TERM1   9   015   0224
  0046 SINE1   4   006   022A
  0047 COS     9   015   0239
  0058 COS1    4   015   0248
  0060 RADIA   4   006   024E
  0063 TAN     9   015   025D
  0064 TAN1    4   015   026C
  0068 COT     9   015   027B
  0069 COT1    4   015   028A
  0072 SEC     9   015   0299
  0073 SEC1    4   015   02A8
  0076 CSC     9   015   02B7
  0077 CSC1    4   015   02C6
  0084 DEGREE  0   003   02C9

  LABELS USED
 STMT#  NAME   TYPE
  0011 ADD     TAG
  0023 CYCLE   TAG
  0065 BPS     TAG
  0070 BPS1    TAG
  0074 SP      TAG
  0078 TP      TAG

             COMPILE TIME TABLES AND ARRAYS
 STMT#    TABLE/  DEC  ENTRY  NUMBER OF   DTT      T/A
 DEFINED  ARRAY   POS  LENGTH  ENTRIES    DISP     DISP
  0003    LINE           096    0026      02CA     0331


    LINE

                  **********   **********          ****           ******
                  **********   *          *        ****          *
                       **      *          *        ****         *
                       **      *          *         **         **
                       **      *          *         **         **
                       **      **********           **         **
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                        **        **        **         **         **     ***
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  ************        ****         *******          *             **********      *********
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       **          **********      ********         *             ********        **********
       **          **********      ********        **             ********                **
       **          **      **      **     **       **             **                      **
       ***         **      **      **      **      **             **                      **
       ***         **      **      **      **      **             **                      **
       ***         **      **      **      **      **********     **********              **
       ***         **      **      *********       **********     **********      **********
    END OF TABLE/ARRAY


  ERROR NUMBER  STATEMENT NUMBER
    RG 221           0044
    RG 221           0046
    RG 221           0056
    RG 221           0060

  ERROR SEVERITY                                TEXT
RG  221 W       RESULT FIELD LENGTH MAY NOT BE LARGE ENOUGH.
RG  314 W       FIELD, TABLE OR ARRAY NAME DEFINED BUT NEVER USED.


                                     CORE USAGE OF RPGII CODE
    START  NAME IF  CODE    NAME    TITLE
    ADDR   OVERLAY  LENGTH
    1200            0E73    RGROOT  ROOT
    20D5            00A0    RGMAIN  INPUT MAINLINE
    2175            0046    RGSUBS  RECORD ID
    21BB            0026    RGSUBS  CONTROL FIELDS
    2073            005A    RGSUBS  INPUT CTRL RTN
    20CD            0008    RGSUBS  SUBSEG
    21E1            0145    $$MFRD  MFCU READ
    2326            001D    RGMAIN  INPUT FIELDS
    249B            04CD    RGMAIN  DETAIL CALCS
    23EC            00AF    RGSUBS  CONSTANTS
    2343            009D    RGSUBS  OUTPUT CTRL RTN
    2B7D            0043    $$PGRI  RESET RESULTING INDR
    2AD3            00AA    $$PGAA  TAG (FETCH)
    2BC0            0060    $$PGMC  MULTIPLY
    2968            016B    RGSUBS  EXCEPTION
    23E0            000C    RGSUBS  SUBSEG
    2C8D            00FB    $$LPRT  5203 PRINT
    2C20            006D    $$PGIC  DIVIDE
    2DA2            0060    RGMAIN  TOTAL OUTPUT
    2D88            001A    RGSUBS  CONSTANTS
    2E02            001D    RGMAIN  LR & OVERFLOW PROCESSING
    2E1F            0081    RGMAIN  OPEN
    2EA0            001D    RGMAIN  CLOSE
```
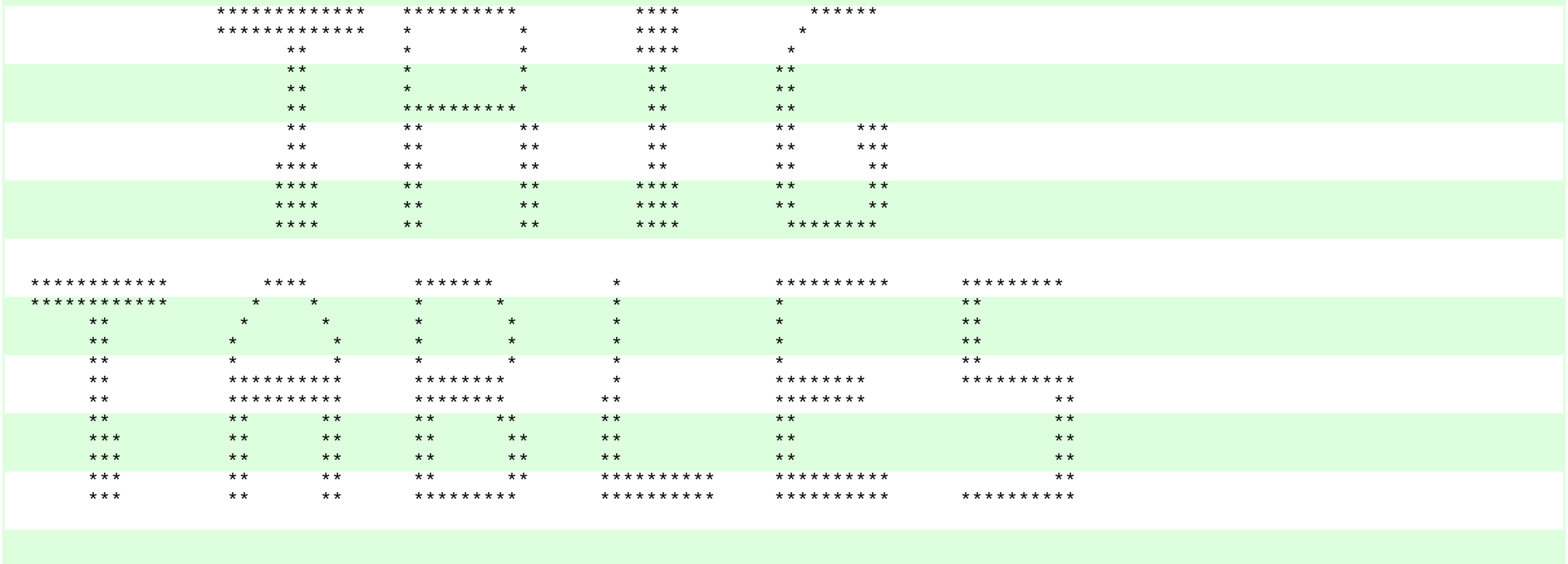

07357 TRIG TOTAL CORE USAGE REQUIRED TO EXECUTE
TOTAL NUMBER OF LIBRARY SECTORS REQUIRED 31



TRIGONOMETRIC TABLE

DEGREE	RADIAN	SINE	COSINE	TANGENT	COTANGENT	SECANT	COSECANT
0	.0000	.0000	1.0000	.0000	INFINITY	1.0000	INFINITY
1	.0175	.0175	.9998	.0175	57.2900	1.0002	57.2987
2	.0349	.0349	.9994	.0349	28.6363	1.0006	28.6537
3	.0524	.0523	.9986	.0524	19.0811	1.0014	19.1073
4	.0698	.0698	.9976	.0699	14.3007	1.0024	14.3356
5	.0873	.0872	.9962	.0875	11.4301	1.0038	11.4737
6	.1047	.1045	.9945	.1051	9.5144	1.0055	9.5668
7	.1222	.1219	.9925	.1228	8.1443	1.0075	8.2055
8	.1396	.1392	.9903	.1405	7.1154	1.0098	7.1853
9	.1571	.1564	.9877	.1584	6.3138	1.0125	6.3925
10	.1745	.1736	.9848	.1763	5.6713	1.0154	5.7588
11	.1920	.1908	.9816	.1944	5.1446	1.0187	5.2408
12	.2094	.2079	.9781	.2126	4.7046	1.0223	4.8097
13	.2269	.2250	.9744	.2309	4.3315	1.0263	4.4454
14	.2443	.2419	.9703	.2493	4.0108	1.0306	4.1336
15	.2618	.2588	.9659	.2679	3.7321	1.0353	3.8637
16	.2793	.2756	.9613	.2867	3.4874	1.0403	3.6280
17	.2967	.2924	.9563	.3057	3.2709	1.0457	3.4203
18	.3142	.3090	.9511	.3249	3.0777	1.0515	3.2361
19	.3316	.3256	.9455	.3443	2.9042	1.0576	3.0716
20	.3491	.3420	.9397	.3640	2.7475	1.0642	2.9238
21	.3665	.3584	.9336	.3839	2.6051	1.0711	2.7904
22	.3840	.3746	.9272	.4040	2.4751	1.0785	2.6695
23	.4014	.3907	.9205	.4245	2.3559	1.0864	2.5593
24	.4189	.4067	.9135	.4452	2.2460	1.0946	2.4586
25	.4363	.4226	.9063	.4663	2.1445	1.1034	2.3662
26	.4538	.4384	.8988	.4877	2.0503	1.1126	2.2812

27	.4712	.4540	.8910	.5095	1.9626	1.1223	2.2027
28	.4887	.4695	.8829	.5317	1.8807	1.1326	2.1301
29	.5061	.4848	.8746	.5543	1.8040	1.1434	2.0627
30	.5236	.5000	.8660	.5774	1.7321	1.1547	2.0000
31	.5411	.5150	.8572	.6009	1.6643	1.1666	1.9416
32	.5585	.5299	.8480	.6249	1.6003	1.1792	1.8871
33	.5760	.5446	.8387	.6494	1.5399	1.1924	1.8361
34	.5934	.5592	.8290	.6745	1.4826	1.2062	1.7883
35	.6109	.5736	.8192	.7002	1.4281	1.2208	1.7434
36	.6283	.5878	.8090	.7265	1.3764	1.2361	1.7013
37	.6458	.6018	.7986	.7536	1.3270	1.2521	1.6616
38	.6632	.6157	.7880	.7813	1.2799	1.2690	1.6243
39	.6807	.6293	.7771	.8098	1.2349	1.2868	1.5890
40	.6981	.6428	.7660	.8391	1.1918	1.3054	1.5557
41	.7156	.6561	.7547	.8693	1.1504	1.3250	1.5243
42	.7330	.6691	.7431	.9004	1.1106	1.3456	1.4945
43	.7505	.6820	.7314	.9325	1.0724	1.3673	1.4663
44	.7679	.6947	.7193	.9657	1.0355	1.3902	1.4396
45	.7854	.7071	.7071	1.0000	1.0000	1.4142	1.4142
46	.8029	.7193	.6947	1.0355	.9657	1.4396	1.3902
47	.8203	.7314	.6820	1.0724	.9325	1.4663	1.3673
48	.8378	.7431	.6691	1.1106	.9004	1.4945	1.3456
49	.8552	.7547	.6561	1.1504	.8693	1.5243	1.3250
50	.8727	.7660	.6428	1.1918	.8391	1.5557	1.3054
51	.8901	.7771	.6293	1.2349	.8098	1.5890	1.2868
52	.9076	.7880	.6157	1.2799	.7813	1.6243	1.2690
53	.9250	.7986	.6018	1.3270	.7536	1.6616	1.2521
54	.9425	.8090	.5878	1.3764	.7265	1.7013	1.2361
55	.9599	.8192	.5736	1.4281	.7002	1.7434	1.2208
56	.9774	.8290	.5592	1.4826	.6745	1.7883	1.2062
57	.9948	.8387	.5446	1.5399	.6494	1.8361	1.1924
58	1.0123	.8480	.5299	1.6003	.6249	1.8871	1.1792
59	1.0297	.8572	.5150	1.6643	.6009	1.9416	1.1666
60	1.0472	.8660	.5000	1.7321	.5774	2.0000	1.1547
61	1.0647	.8746	.4848	1.8040	.5543	2.0627	1.1434
62	1.0821	.8829	.4695	1.8807	.5317	2.1301	1.1326
63	1.0996	.8910	.4540	1.9626	.5095	2.2027	1.1223
64	1.1170	.8988	.4384	2.0503	.4877	2.2812	1.1126
65	1.1345	.9063	.4226	2.1445	.4663	2.3662	1.1034
66	1.1519	.9135	.4067	2.2460	.4452	2.4586	1.0946
67	1.1694	.9205	.3907	2.3559	.4245	2.5593	1.0864
68	1.1868	.9272	.3746	2.4751	.4040	2.6695	1.0785
69	1.2043	.9336	.3584	2.6051	.3839	2.7904	1.0711
70	1.2217	.9397	.3420	2.7475	.3640	2.9238	1.0642
71	1.2392	.9455	.3256	2.9042	.3443	3.0716	1.0576
72	1.2566	.9511	.3090	3.0777	.3249	3.2361	1.0515
73	1.2741	.9563	.2924	3.2709	.3057	3.4203	1.0457
74	1.2915	.9613	.2756	3.4874	.2867	3.6280	1.0403
75	1.3090	.9659	.2588	3.7320	.2679	3.8637	1.0353
76	1.3265	.9703	.2419	4.0108	.2493	4.1336	1.0306
77	1.3439	.9744	.2250	4.3315	.2309	4.4454	1.0263
78	1.3614	.9781	.2079	4.7046	.2126	4.8097	1.0223
79	1.3788	.9816	.1908	5.1446	.1944	5.2408	1.0187
80	1.3963	.9848	.1736	5.6713	.1763	5.7588	1.0154
81	1.4137	.9877	.1564	6.3137	.1584	6.3925	1.0125
82	1.4312	.9903	.1392	7.1154	.1405	7.1853	1.0098
83	1.4486	.9925	.1219	8.1443	.1228	8.2055	1.0075
84	1.4661	.9945	.1045	9.5144	.1051	9.5668	1.0055
85	1.4835	.9962	.0872	11.4301	.0875	11.4737	1.0038
86	1.5010	.9976	.0698	14.3007	.0699	14.3356	1.0024
87	1.5184	.9986	.0523	19.0812	.0524	19.1074	1.0014
88	1.5359	.9994	.0349	28.6364	.0349	28.6538	1.0006
89	1.5533	.9998	.0175	57.2906	.0175	57.2993	1.0002
90	1.5708	1.0000	.0000	INFINITY	.0000	INFINITY	1.0000

END OF JOB