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38 BBBBCCCCCCCC  
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49 BBBBCCCCCCCC  
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53 LPTSP1 VERSION 6(34) RUNNING ON LPTW  
54 \*START\* USER SANDIA THUR [2003,2003] JOB 110 SEQ. 3881 DATE 25-MAY-77 07:58:52 MONITOR ALBUQUERQUE SCHOOLS 5070 \*START\*  
55 REQUEST CREATED: 24-MAY-77 20:54:26  
56 FILE: DSKAM:TIN.BAS[2003,2003] CREATED: 24-MAY-77 20:48:00 <777> PRINTED: 25-MAY-77 07:59:02  
57 QUEUE SWITCHES: /PRINT:AHDRN /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:49 /FORMS:NORMAL  
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4 00001 DIM C(144),D(144),A(101),R(30) 2

5 00010 DEF FNF(F1) 3

6 00011 IF F1<=33, GO TO 20 4

7 00012 PRINT "% FACTORIAL OF >33=G,-G,-G," 5

8 00013 FNF=1.7#141E+38 6

9 00014 GO TO 60 7

10 00020 FNF=1 8

11 00036 FOR A=1 TO F1 9

12 00040 FNF=FNF\*A 10

13 00050 NEXT A 11

14 00060 FNEND 12

15 00070 DEF FNS(A1) 13

16 00080 IF A1<3.141592654, GO TO 110 14

17 00090 A1=A1-3.141592654 15

18 00100 GO TO 80 16

19 00110 FNS=0 17

20 00120 S1=1 18

21 00130 R2=A1 19

22 00140 IF A1/(3.141592654/180)>2.13, GO TO 170 20

23 00150 A7=F15 21

24 00160 GO TO 160 22

25 00170 A7=17 23

26 00180 FOR A4=1 TO A7 BY 2 24

27 00190 FNSE=FNS+((R2/FNF(A4))\*S1) 25

28 00200 S1=S1\*R1 26

29 00210 R2=R2\*(A1\*A1) 27

30 00220 NEXT A4 28

31 00230 FNEND 29

32 00240 DEF FNL(A7) 30

33 00250 IF A7<=0, GO TO 290 31

34 00260 PRINT "% LOG OF ZERO=G,-G,-G," 32

35 00270 PRINT ";" 33

36 00280 GU TO 340 34

37 00290 IF A7>=0, GO TO 360 35

38 00300 PRINT "% LOG OF NEGATIVE NUMBER=G,-G,-G," 36

39 00310 PRINT ";" 37

40 00320 A7=-A7 38

41 00330 GO TO 360 39

42 00340 FNL=-1.7#141E+38 40

43 00350 GO TO 450 41

44 00360 FNL=A5\*A4=A5=A6=0 42

45 00370 A5=(A7-1)/A7 43

46 00380 A6=A5 44

47 00390 FOR A3=1 TO 33 45

48 00400 FNL=FNL+((1/A3)\*A6) 46

49 00410 A6=A6\*A5 47

50 00420 NEXT A3 48

51 00430 FNEND 49

52 00440 DEF FNE(A7) 50

53 00450 If A7<=0.02969193, GO TO 500 51

54 00460 PRINT "% OVERFLOW IN EXP.=G,-G,-G" 52

55 00470 PRINT ";" 53

56 00480 FNE=1.7#14118E+38 54

57 00490 GO TO 620 55

58 00500 IF A7>=8.2296193, GO TO 540 56

59 00510 PRINT "% UNDERFLOW IN EXP.=G,-G,-G" 57

60 00520 FNE=0 58

61 00530 GO TO 620 59

62 00540 FNE=A5\*A4=A5=A6=0 60

63 00550 FNE=A5=1 61

64 00560 A5=A7 62

65 00570 FOR A3=1 TO 26 63

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4 00580 A5=A5*A5
5 00590 FN=FN+(A4/A5)
6 00600 A4=A4*A7
7 00610 NEXT A3
8 00620 FNEND
9 00630 DEF FNAL(X7)
10 00640 X5=0
11 00650 X4=-1
12 00660 FOR X6=1 TO 20 BY 2
13 00670 X5=X5+X4*((1/X6)*X7^X6)
14 00680 X4=-X4
15 00690 NEXT X6
16 00695 FNAL=0
17 00700 FNEND
18 00710 DEF FNC(L5)=FNS(L5+(3.141592654*.5))
19 00720 DEF FNT(T6)=FNS(T6)/FNC(T6)
20 00730 EXTENDED TRANSCENDENTAL MATH FUNCTIONS--ITHILNIMRATHR,...,"G"-
21 00740 DEF FNBL(Y9,X9)
22 00750 IF Y9<=1, GO TO 780
23 00760 FNBL=FNS(X9)
24 00770 GO TO 1590
25 00780 IF Y9<>2, GO TO 810
26 00790 FNBL=FNC(X9)
27 00800 GO TO 1390
28 00810 IF Y9<>3, GO TO 840
29 00820 FNBL=FNT(X9)
30 00830 GO TO 1390
31 00840 IF Y9<>4, GO TO 930
32 00850 IF Y9<>(3.141592654*.5), GO TO 910
33 00860 PRINT
34 00870 PRINT "% SEC OF PI/2,-G,-G,-G"
35 00880 PRINT "#"
36 00890 FNBL=1.70141E+58
37 00900 GO TO 1390
38 00910 FNBL=1/FNL(X9)
39 00920 GO TO 1390
40 00930 IF Y9<>5, GO TO 1000
41 00940 IF X9<>0, GO TO 960
42 00950 PRINT
43 00960 PRINT "% CSC OF 0,-G,-G,-G"
44 00970 GO TO 860
45 00980 FNBL=1/FNS(X9)
46 00990 GO TO 1390
47 01000 IF Y9<>6, GO TO 1070
48 01010 IF X9<>0, GO TO 1050
49 01020 PRINT
50 01030 PRINT "% COT OF 0,-G,-G,-G"
51 01040 GO TO 860
52 01050 FNBL=1/FNT(X9)
53 01060 GO TO 1390
54 01070 IF Y9<>7, GO TO 1110
55 01080 FNBL=FNAL(X9)
56 01090 GO TO 1390
57 01100 PRINT
58 01110 IF Y9<>8, GO TO 1180
59 01120 IF (-X9*X9+1)>0, GO TO 1160
60 01130 PRINT "% ARCSIN ARG. ERROR,-G,-G,-G"
61 01140 GO TO 860
62 01150 PRINT
63 01160 FNBL=FNA(X9/SQRT(-X9*X9+1))
64 01170 GO TO 1390
65 01180 IF Y9<>9, GO TO 1240

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4 01190 IF [-X9*X9+1]>0, GO TO 1240  
5 01200 PRINT "% ARCCOS ARG. ERROR,-G,-G,-G"  
6 01210 GO TO 880  
7 01220 FN8=-FNA(X9/SQR(-X9*X9+1))+1.570796  
8 01230 GO TO 1590  
9 01240 IF Y9<>10, GO TO 1310  
10 01250 IF (X9*X9-1)>=0, GO TO 1290  
11 01260 PRINT  
12 01270 PRINT "% ARCCSC ARG. ERROR,-G,-G,-G"  
13 01280 GO TO 880  
14 01290 FN8=FNA(SQR(X9*X9-1))+(SGN(X9)-1)*1.570796  
15 01300 GO TO 1590  
16 01310 IF Y9<>11, GO TO 1380  
17 01320 IF (X9*X9-1)>0, GO TO 1360  
18 01330 PRINT  
19 01340 PRINT "% ARCCSC ARG. ERROR,-G,-G,-G"  
20 01350 GO TO 880  
21 01360 FN8=FNA(1/SQR(X9*X9-1))+(SGN(X9)-1)*1.570796  
22 01370 GO TO 1590  
23 01380 FN8=-FNA(X9)+1.570796  
24 01390 FNEND  
25 01400 DEF FNH(Y9,X9)  
26 01410 IF Y9<>1, GO TO 1500  
27 01420 IF ABS(X9)<=.02, GO TO 1480  
28 01430 PRINT  
29 01440 PRINT "% SINH ARG. ERROR,-G,-G,-G"  
30 01450 PRINT "#"  
31 01460 FNH=1.7e141E+58  
32 01470 GO TO 2530  
33 01480 FNH=(FNE(X9)-FNE(-X9))/2  
34 01490 GO TO 1470  
35 01500 IF Y9<>2, GO TO 1570  
36 01510 IF ABS(X9)<=.02, GO TO 1550  
37 01520 PRINT  
38 01530 PRINT "% COSH ARG. ERROR,-G,-G,-G"  
39 01540 GO TO 1450  
40 01550 FNH=(FNE(X9)+FNE(-X9))/2  
41 01560 GO TO 1470  
42 01570 IF Y9<>3, GO TO 1640  
43 01580 IF ABS(X9)<=.02, GO TO 1620  
44 01590 PRINT  
45 01600 PRINT "% TANH ARG. ERROR,-G,-G,-G"  
46 01610 GO TO 1450  
47 01620 FNH=FNE(-X9)/(FNE(X9)+FNE(-X9))*2+1  
48 01630 GO TO 1470  
49 01640 IF Y9<>4, GO TO 1710  
50 01650 IF ABS(X9)<=.02, GO TO 1690  
51 01660 PRINT  
52 01670 PRINT "% SECH ARG. ERROR,-G,-G,-G"  
53 01680 GO TO 1450  
54 01690 FNH=2/(FNE(X9)+FNE(-X9))  
55 01700 GO TO 1470  
56 01710 IF Y9<>5, GO TO 1790  
57 01720 IF ABS(X9)<=.02, GO TO 1770  
58 01730 IF X9<>0, GO TO 1770  
59 01740 PRINT  
60 01750 PRINT "% CSCH ARG. ERROR,-G,-G,-G"  
61 01760 GO TO 1450  
62 01770 FNH=2/(FNE(X9)-FNE(-X9))  
63 01780 GO TO 1470  
64 01790 IF Y9<>6, GO TO 1860  
65 01800 IF ABS(X9)<=.02, GO TO 1840
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5 01810 PRINT "% COTH ARG. ERROR."G."G."G"
6 01820 PRINT "% COTH ARG. ERROR."G."G."G"
7 01830 GO TO 1450
8 01840 FNH=FNEL(-X9)/(FNE(X9)-FNE(-X9))*2+1
9 01850 GO TO 1470
10 01860 IF Y9<>1, GO TO 1940
11 01870 IF (X9*X9+1)<0, GO TO 1890
12 01880 IF (X9+SQR(X9*X9+1))>0, GO TO 1920
13 01890 PRINT "% ARCSINH ARG. ERROR."G."G."G"
14 01900 PRINT "% ARCSINH ARG. ERROR."G."G."G"
15 01910 GO TO 1450
16 01920 FNH=FNLL(X9+SQR(X9*X9+1))
17 01930 GO TO 1470
18 01940 IF Y9<>1, GO TO 2010
19 01950 IF (X9*X9-1)<0, GO TO 1970
20 01960 IF (X9+SQR(X9*X9-1))>0, GO TO 2000
21 01970 PRINT "% ARCCOSH ARG. ERROR."G."G."G"
22 01980 PRINT "% ARCCOSH ARG. ERROR."G."G."G"
23 01990 GO TO 1450
24 02000 FNH=FNLL(X9+SQR(X9*X9-1))
25 02010 If Y9<>1, GO TO 2090
26 02020 If 1-X9<0, GO TO 2040
27 02030 If (1-X9)/(1/X9)>0, GO TO 2070
28 02040 PRINT "% ARCTANH ARG. ERROR."G."G."G"
29 02050 PRINT "% ARCTANH ARG. ERROR."G."G."G"
30 02060 GO TO 1450
31 02070 FNH=FNLL((1+X9)/(1-X9))/2
32 02080 GO TO 1470
33 02090 If Y9<>10, GO TO 2160
34 02100 If X9<0, GO TO 2130
35 02110 If (-X9*X9+1)>=0, GO TO 2160
36 02120 If ((SGN(-X9*X9+1)+1)/X9)>0, GO TO 2160
37 02130 PRINT "% ARCSSECH ARG. ERROR."G."G."G"
38 02140 PRINT "% ARCSSECH ARG. ERROR."G."G."G"
39 02150 GO TO 1450
40 02160 FNH=FNLL((SQR(-X9*X9+1)+1)/X9)
41 02170 GO TO 1470
42 02180 If X9<>11, GO TO 2270
43 02190 If X9<0, GO TO 2220
44 02200 If (X9*X9+1)>=0, GO TO 2250
45 02210 If ((SGN(X9)*SQR(X9*X9+1)+1)/X9)>0, GO TO 2200
46 02220 PRINT "% ARCCSCH ARG. ERROR."G."G."G"
47 02230 GO TO 1450
48 02240 FNH=FNLL((SGN(X9)*SQR(X9*X9+1)+1)/X9)
49 02250 GO TO 1470
50 02260 If (X+1)/(X-1)=0, GO TO 2290
51 02270 If ((X+1)/(X-1))>0, GO TO 2320
52 02280 PRINT "% ARCCOTH ARG. ERROR."G."G."G"
53 02290 GO TO 1450
54 02300 FNH=FNLL((X+1)/(X-1))/2
55 02310 FNEND
56 02320 END
57 02335 GO TO 3000
58 02340 AS CONVERTER
59 02350 MAT C$ZER
60 02360 CHANGE AS TO C
61 02370 MAT D$ZER
62 02380 C$=0
63 02390 FOR C1=8 TO 143
64 02400 IF C(C1)=32, GO TO 2460
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4 02420 IF C(C1)<97, GO TO 2440  
5 02430 L(C1)=L(C1)-32  
6 02440 0(C2)=C(C1)  
7 02450 L2=C2+1  
8 02460 NCAT L1  
9 02470 CHANGE D TO AS  
10 02480 RETURN  
11 03000 GOSUB 70000  
12 03010 GOSUB 7030  
13 03020 I=0  
14 03030 PRINT "RPN CALCULATOR(H FOR HELP)"  
15 03040 COMMAND LOOP  
16 03050 INPUT AS  
17 03060 GOSUB 2340  
18 03070 IF LEFT\$(AS,1)<>"=", GO TO 3100  
19 03080 GOSUB 50000  
20 03090 GO TO 3242  
21 03100 IF LEFT\$(AS,4)<>"PRTX", GO TO 3130  
22 03110 GOSUB 50000  
23 03120 GO TO 50400  
24 03130 IF LEFT\$(AS,2)<>"PI", GO TO 3160  
25 03140 GOSUB 50300  
26 03150 GO TO 50400  
27 03160 IF LEFT\$(AS,2)<>"X=", GO TO 3190  
28 03170 GOSUB 50500  
29 03180 GO TO 50400  
30 03190 IF LEFT\$(AS,3)<>"ENT", GO TO 3220  
31 03200 GOSUB 52800  
32 03210 GO TO 50400  
33 03220 IF LEFT\$(AS,1)<>"+", GO TO 3250  
34 03230 GOSUB 51500  
35 03240 GO TO 50400  
36 03250 IF LEFT\$(AS,1)<> "\*", GO TO 3260  
37 03260 GOSUB 51600  
38 03270 GO TO 50400  
39 03280 IF LEFT\$(AS,3)<>"STA", GO TO 5310  
40 03290 GOSUB 51900  
41 03300 GO TO 50400  
42 03310 IF LEFT\$(AS,3)<>"INT", GO TO 53400  
43 03320 GOSUB 55400  
44 03330 GO TO 50400  
45 03340 IF LEFT\$(AS,5)<>"FRAC", GO TO 5370  
46 03350 GOSUB 55600  
47 03360 GO TO 50400  
48 03370 IF LEFT\$(AS,5)<>"RDW", GO TO 5400  
49 03380 GOSUB 55800  
50 03390 GO TO 50400  
51 03400 IF LEFT\$(AS,4)<>"-ENT", GO TO 5430  
52 03410 GOSUB 54000  
53 03420 GO TO 50400  
54 03430 IF LEFT\$(AS,3)<>"1/X", GO TO 5460  
55 03440 GOSUB 54500  
56 03450 GO TO 50400  
57 03460 IF LEFT\$(AS,3)<>"STO", GO TO 5490  
58 03470 GOSUB 55000  
59 03480 GO TO 50400  
60 03490 IF LEFT\$(AS,3)<>"DUP", GO TO 5520  
61 03500 GOSUB 55800  
62 03510 GO TO 50400  
63 03520 IF LEFT\$(AS,1)<>"/", GO TO 3550  
64 03530 GOSUB 57400  
65 03540 GO TO 50400  
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6 03556 IF LEFT\$(AS,4)<>"LOGE", GO TO 3580  
7 03560 GOSUB 5610  
8 03570 GO TO 3640  
9 03580 IF LEFT\$(AS,5)<>"-LOGE", GO TO 3610  
10 03585 GOSUB 5630  
11 03600 GO TO 3640  
12 03610 IF LEFT\$(AS,4)<>"EXIT", GO TO 3630  
13 03620 STOP  
14 03630 IF LEFT\$(AS,3)<>"LOG", GO TO 3720  
15 03640 GOSUB 5650  
16 03650 GO TO 3640  
17 03720 IF LEFT\$(AS,1)<>"!", GO TO 3760  
18 03721 GOSUB 5770  
19 03722 GO TO 3640  
20 03780 IF LEFT\$(AS,3)<>"CLX", GO TO 3810  
21 03790 GOSUB 7050  
22 03800 GO TO 3640  
23 03810 IF LEFT\$(AS,3)<>"CLR", GO TO 3840  
24 03820 GOSUB 7010  
25 03830 GO TO 3640  
26 03840 IF LEFT\$(AS,3)<>"ZER", GO TO 3870  
27 03850 GOSUB 7030  
28 03860 GO TO 3640  
29 03870 IF LEFT\$(AS,4)<>"SINH", GO TO 3900  
30 03880 GOSUB 6210  
31 03890 GO TO 3640  
32 03900 IF LEFT\$(AS,4)<>"CUSH", GO TO 3930  
33 03910 GOSUB 6230  
34 03920 GO TO 3640  
35 03930 IF LEFT\$(AS,4)<>"TANH", GO TO 3960  
36 03940 GOSUB 6250  
37 03950 GO TO 3640  
38 03960 IF LEFT\$(AS,4)<>"SECH", GO TO 3990  
39 03970 GOSUB 6270  
40 03980 GO TO 3640  
41 03990 IF LEFT\$(AS,4)<>"CSCH", GO TO 4020  
42 04000 GOSUB 6290  
43 04010 GO TO 3640  
44 04020 IF LEFT\$(AS,4)<>"COTH", GO TO 4050  
45 04030 GOSUB 6310  
46 04040 GO TO 3640  
47 04050 IF LEFT\$(AS,5)<>"-SINH", GO TO 4080  
48 04060 GOSUB 6330  
49 04070 GO TO 3640  
50 04080 IF LEFT\$(AS,5)<>"-CUSH", GO TO 4110  
51 04090 GOSUB 6350  
52 04100 GO TO 3640  
53 04110 IF LEFT\$(AS,5)<>"-TANH", GO TO 4140  
54 04120 GOSUB 6370  
55 04130 GO TO 3640  
56 04140 IF LEFT\$(AS,5)<>"-SECH", GO TO 4170  
57 04150 GOSUB 6390  
58 04160 GO TO 3640  
59 04170 IF LEFT\$(AS,5)<>"-CSCH", GO TO 4200  
60 04180 GOSUB 6410  
61 04190 GO TO 3640  
62 04200 IF LEFT\$(AS,5)<>"-COTH", GO TO 4230  
63 04210 GOSUB 6430  
64 04220 GO TO 3640  
65 04230 IF LEFT\$(AS,5)<>"SIN", GO TO 4260  
66 04240 GOSUB 5991  
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4 04250 GO TO 3040  
5 04260 IF LEFT\$(AS,3)<>"COS", GO TO 4290  
6 04270 GOSUB 5993  
7 04280 GO TO 3040  
8 04290 IF LEFT\$(AS,3)<>"1AH", GO TO 4320  
9 04300 GOSUB 6010  
10 04310 GO TO 3040  
11 04320 IF LEFT\$(AS,3)<>"SEC", GO TO 4350  
12 04330 GOSUB 6050  
13 04340 GO TO 3040  
14 04350 IF LEFT\$(AS,3)<>"CSC", GO TO 4360  
15 04360 GOSUB 6050  
16 04370 GO TO 3040  
17 04380 IF LEFT\$(AS,3)<>"COT", GO TO 4410  
18 04390 GOSUB 6070  
19 04400 GO TO 3040  
20 04410 IF LEFT\$(AS,4)<>"-TAN", GO TO 4440  
21 04420 GOSUB 6090  
22 04430 GO TO 3040  
23 04440 IF LEFT\$(AS,4)<>"-SIN", GO TO 4470  
24 04450 GOSUB 6110  
25 04460 GO TO 3040  
26 04470 IF LEFT\$(AS,4)<>"-COS", GO TO 4500  
27 04480 GOSUB 6130  
28 04490 GO TO 3040  
29 04500 IF LEFT\$(AS,4)<>"-SEC", GO TO 4530  
30 04510 GOSUB 6150  
31 04520 GO TO 3040  
32 04530 IF LEFT\$(AS,4)<>"-CSC", GO TO 4560  
33 04540 GOSUB 6170  
34 04550 GO TO 3040  
35 04560 IF LEFT\$(AS,4)<>"-COT", GO TO 4590  
36 04570 GOSUB 6190  
37 04580 GO TO 3040  
38 04590 IF LEFT\$(AS,3)<>"TSR", GO TO 4620  
39 04600 GOSUB 6450  
40 04610 GO TO 3040  
41 04620 IF LEFT\$(AS,3)<>"TS6", GO TO 4640  
42 04630 GOSUB 6470  
43 04650 GO TO 3040  
44 04640 IF LEFT\$(AS,3)<>"TSD", GO TO 4670  
45 04650 GOSUB 6490  
46 04660 GO TO 3040  
47 04670 IF LEFT\$(AS,3)<>"REC", GO TO 4700  
48 04680 GOSUB 6510  
49 04690 GO TO 3040  
50 04700 IF LEFT\$(AS,1)<>"H", GO TO 4820  
51 04800 GOSUB 15000  
52 04810 GO TO 3040  
53 04950 IF LEFT\$(AS,1)<>"=", GO TO 4980  
54 04960 GOSUB 5940  
55 04970 GO TO 3040  
56 04980 GOSUB 10000  
57 04990 GO TO 3040  
58 05000 ROUTINE CONTROLLERS.  
59 05010 PRINT X  
60 05020 RETURN  
61 05030 X=3.141592653589793E3646  
62 05040 RETURN  
63 05050 PRINT "X="/  
64 05060 INPUT X

3  
4 05570 RETURN  
5 05580 T=2  
6 05590 Z=Y  
7 055100 Y=X  
8 055120 RETURN  
9 055130 Y=X+Y  
10 055140 GOSUB 5400  
11 055150 RETURN  
12 055160 Y=XXY  
13 055170 GOSUB 5402  
14 055180 RETURN  
15 055190 A\$=PX)+"\$TR\$S(X)  
16 055195 GOSUB 2340  
17 055197 PRINT A\$  
18 055200 A\$=PY)+"\$TR\$S(Y)  
19 055205 GOSUB 2340  
20 055207 PRINT A\$  
21 055208 A\$=PZ)+"\$TR\$S(Z)  
22 055210 GOSUB 2340  
23 055215 PRINT A\$  
24 055220 A\$=P1)+"\$TR\$S(1)  
25 055225 GOSUB 2340  
26 055227 PRINT A\$  
27 055230 RETURN  
28 055240 X=INT(X)  
29 055250 RETURN  
30 055260 X\$=XINT(X)  
31 055270 RETURN  
32 055280 X=INT(X+.5)  
33 055290 RETURN  
34 055300 X#Y  
35 055310 Y=Z  
36 055320 Z=T  
37 055330 RETURN  
38 055340 IF X<>0, GO TO 5480  
39 055350 PRINT "% ZERO ARG. IN 1/X.%G.%G.%G"  
40 055360 X=1.70141E+56  
41 055370 RETURN  
42 055380 X#1/X  
43 055390 RETURN  
44 055400 X1=INT(VAL(RIGHT\$(A\$, (LEN(A\$)-3))))  
45 055410 IF X1<>-3, GO TO 5530  
46 055420 T\$X  
47 055425 RETURN  
48 055430 IF X1<>-2, GO TO 5560  
49 055440 Z=X  
50 055450 RETURN  
51 055460 IF X1<>-1, GO TO 5590  
52 055470 Y=X  
53 055480 RETURN  
54 055490 IF X1<>0, GO TO 5610  
55 055500 RETURN  
56 055510 IF X1<=0, GO TO 5620  
57 055515 IF X1<=100, GO TO 5640  
58 055520 PRINT "A STOHN WITH NN ILLEGAL.%G.%G.%G"  
59 055530 RETURN  
60 055540 A(X1)=X  
61 055550 RETURN  
62 055560 FOR K#=1 TO 100  
63 055570 A\$="A"+\$TR\$S(X1)+"")+"\$TR\$S(A(X1))  
64 055580 GOSUB 2340  
65 055590 PRINT A\$

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4 05720 NEXT X1  
5 05730 RETURN  
6 05740 IF X<>0, GO TO 5780  
7 05750 PRINT "% ZERO DIVISOR IN '/' ."-G.-G.-G"  
8 05760 Y=1.7e141E+38  
9 05770 GO TO 5790  
10 05780 Y=Y/X  
11 05790 GOSUB 5400  
12 05800 RETURN  
13 05810 X=FNL(X)  
14 05820 RETURN  
15 05830 X=FNE(X)  
16 05840 RETURN  
17 05850 X=INT(VAL(RIGHTS(A\$, (LEN(A\$)-3))))  
18 05860 IF X1>0, GO TO 5900  
19 05870 PRINT "% LOENN WITH NN ILLEGAL.-G.-G."  
20 05880 X=1.7e141E+38  
21 05890 RETURN  
22 05900 X=FN(X)/FNL(X1)  
23 05910 RETURN  
24 05940 Y=Y-X  
25 05950 GOSUB 5400  
26 05960 RETURN  
27 05970 X=ENF(X)  
28 05980 RETURN  
29 05991 X=PNB(1,FNR(X,I))"SINE"  
30 05992 RETURN  
31 05993 X=PNB(2,FNR(X,I))"COSINE"  
32 05994 RETURN  
33 06010 X=PNB(3,FNR(X,I))"TANGENT"  
34 06020 RETURN  
35 06050 X=PNB(4,FNR(X,I))"SECANT"  
36 06040 RETURN  
37 06050 X=PNB(5,FNR(X,I))"COSSECANT"  
38 06060 RETURN  
39 06070 X=PNB(6,FNR(X,I))"COTANGENT"  
40 06080 RETURN  
41 06090 X=PNB(7,FNR(X,-1))"ARCTANGENT"  
42 06100 RETURN  
43 06110 X=PNB(8,FNR(X,-1))"ARCSINE"  
44 06120 RETURN  
45 06130 X=PNB(9,FNR(X,-1))"ARCCOSINE"  
46 06140 RETURN  
47 06150 X=PNB(10,FNR(X,-1))"ARCSECANT"  
48 06160 RETURN  
49 06170 X=PNB(11,FNR(X,-1))"ARCCOSECANT"  
50 06180 RETURN  
51 06190 X=PNB(12,FNR(X,-1))"ARCCOTANGENT"  
52 06200 RETURN  
53 06210 X=FNH(1,X)"HYPERBOLIC SINE"  
54 06220 RETURN  
55 06230 X=FNH(2,X)"HYPERBOLIC COSINE"  
56 06240 RETURN  
57 06250 X=FNH(3,X)"HYPERBOLIC TANGENT"  
58 06260 RETURN  
59 06270 X=FNH(4,X)"HYPERBOLIC SECANT"  
60 06280 RETURN  
61 06290 X=FNH(5,X)"HYPERBOLIC COSECANT"  
62 06300 RETURN  
63 06310 X=FNH(6,X)"HYPERBOLIC COTANGENT"  
64 06320 RETURN  
65 06330 X=FNH(7,X)"HYPERBOLIC ARCSINE"  
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4 06300 RETURN
5 06350 X=FNH(8,X)*HYPERBOLIC ARCCOSINE
6 06360 RETURN
7 06370 X=FNH(9,X)*HYPERBOLIC ARCTANGENT
8 06380 RETURN
9 06390 X=FNH(10,X)*HYPERBOLIC ARCCSECANT
10 06400 RETURN
11 06410 X=FNH(11,X)*HYPERBOLIC ARCCOSECANT
12 06420 RETURN
13 06430 X=FNH(12,X)*HYPERBOLIC ARCCOTANGENT
14 06440 RETURN
15 06450 1=2
16 06460 RETURN
17 06470 1=1
18 06480 RETURN
19 06490 1=2
20 06500 RETURN
21 06510 X1=INT(VAL(RIGHTSLAS,(LEN(LAS)-3))) 21
22 06520 IF X1<0, GO TO 6540 22
23 06530 IF X1<100, GO TO 6560 23
24 06540 PRINT "%% RECNH WITH NN ILLEGAL."G,"G." 24
25 06550 RETURN 25
26 06560 X=A(X1) 26
27 06570 RETURN 27
28 07000 * CLEARS 28
29 07010 XKEYZ#T#0 29
30 07020 RETURN 30
31 07030 MAT A#ZER 31
32 07040 RETURN 32
33 07050 X=0 33
34 07060 RETURN 34
35 10000 * ERROR ON INPUT OR NUMBER INPUT 35
36 10001 IF A$<>"", GO TO 10200 36
37 10002 PRINT X 37
38 10003 RETURN 38
39 10200 PRINT "COMMAND "AS" ILLEGAL OR NOT IMPLEMENTED." 39
40 10210 RETURN 40
41 11000 DEF FNK(B7,17) 41
42 11012 IF 17<>0, GO TO 11030 42
43 11025 FNK=B7 43
44 11027 GO TO 11130 44
45 11030 IF 17<>1, GO TO 11060 45
46 11035 FNK=B7*(3.1415926536979323/200) 46
47 11050 GO TO 11130 47
48 11055 IF 17<>-1, GO TO 11090 48
49 11070 FNK=B7/(3.1415926536979323/200) 49
50 11080 GO TO 11130 50
51 11090 IF 17<>2, GO TO 11120 51
52 11100 FNK=B7*(3.1415926536979323/100) 52
53 11110 GO TO 11130 53
54 11120 FNK=B7/(3.1415926536979323/100) 54
55 11130 FNEND 55
56 15000 PRINT"HELP FOR RPN CALCULATOR PROGRAM." 56
57 15005 PRINT" "
58 15010 PRINT"WRITTEN BY SCOTT THIENIRRAHOK HALBERT" 57
59 15015 PRINT" "
60 15020 PRINT"COMMANDS OF STACK MANIPULATION TYPES:" 59
61 15025 PRINT"STA      LISTS OUT STACKS" 60
62 15030 PRINT"ENT      ROTATES STACK TOWARD Z" 61
63 15035 PRINT"        Z IS LOST X IS COPIED." 62
64 15040 PRINT"-ENT      OPPOSITE OF ENT" 63
65 15045 PRINT"CRX      CLEARS X." 64
66
67

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13050 PRINT"CLR" CLEARS X THROUGH Z."
13055 PRINT"
13060 PRINT"COMMANDS OF ACCUMULATOR MANIPULATION TYPE:"
13065 PRINT"
13070 PRINT"STO(NN STORES X IN AC NN."
13075 PRINT"REC(NN STORES AC NN IN X."
13080 PRINT"ZER ZEROS ACS 1-100.
13085 PRINT"
13090 PRINT"TRIGONOMETRIC FUNCTIONS:"
13095 PRINT"
13100 PRINT"TSR SETS TRIG FUNCTIONS TO RADIANS(DEFAULT)."
13105 PRINT"ISG SETS TRIG FUNCTIONS TO GRADUATIONS."
13110 PRINT"ITD SETS TRIG FUNCTIONS TO DEGREES."
13115 PRINT"
13120 PRINT"SIN X=SIN(X)"
13125 PRINT"COS X=COS(X)"
13130 PRINT"TAN X=TAN(X)"
13135 PRINT"SEC X=SECANT(X)"
13140 PRINT"CSC X=COSECANT(X)"
13145 PRINT"COT X=COTANGENT(X)"
13150 PRINT"-SIN X=ARCSIN(X)"
13155 PRINT"-COS X=ARCCOS(X)"
13160 PRINT"-TAN X=ARCTAN(X)"
13165 PRINT"-SEC X=ARCOSECANT(X)"
13170 PRINT"-CSC X=ARCCOSECANT(X)"
13175 PRINT"-COT X=ARCCOTANGENT(X)"
13180 PRINT"
13185 PRINT"SINH HYPERBOLIC SINE"
13190 PRINT"COSH HYPERBOLIC COSINE"
13195 PRINT"TANH HYPERBOLIC TANGENT"
13200 PRINT"SECH HYPERBOLIC SECANT"
13205 PRINT"CSECH HYPERBOLIC COSECANT"
13210 PRINT"CUHM HYPERBOLIC COTANGENT"
13215 PRINT"-SINH INVERSE HYPERBOLIC SINE"
13220 PRINT"-COSH INVERSE HYPERBOLIC COSINE"
13225 PRINT"-TANH INVERSE HYPERBOLIC TANGENT"
13230 PRINT"-SECH INVERSE HYPERBOLIC SECANT"
13235 RETURN
99949
END

