

PROGRAM LISTING

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120 PRINT"YOU HAVE THE OPPORTUNITY OF TRYING TO BEAT THE COMPUTER"
130 PRINT"AT TIC-TAC-TOE, ENTER YOUR MOVES AS FOLLOWS:"
140 PRINT
150 DIM C(11)
160 DIM D(11)
170 FOR K=1 TO 11
180 READ C(K), D(K)
190 NEXT K
200 PRINT "...ROW NUMBER...,COMMA...,COLUMN NUMBER..."
210 PRINT
220 PRINT"ROWS ARE HORIZONTAL(ACROSS)...COLUMNS ARE VERTICAL(UP + DOWN)"
230 DIM B(9)
240 DIM A(3,3)
250 PRINT
260 PRINT "NEW GAME STARTED NOW....."
270 FOR J=1 TO 3
280 FOR I=1 TO 3
290 LET A(I,J)=0
300 NEXT I
301 LET I=I-1
310 NEXT J
311 LET J=J-1
320 LET Z=0
330 PRINT "YOUR MOVE",
340 INPUT R,C
350 PRINT
360 IF R>3 THEN 620
370 IF C>3 THEN 620
380 IF A(R,C) <> 0 THEN 620
390 LET A(R,C)=1
400 GOSUB 1660
410 IF Z =1 THEN 2070
420 REM MACHINE MOVE...
430 GOSUB 1100
440 REM TEST FOR GAME WIN...
450 GOSUB 1660
460 IF Z=0 THEN 650
470 REM PRINT GAME BOARD..
480 GO TO 490
490 PRINT
500 FOR K=1 TO 3
510 LET B=A(K,1)
520 LET D=A(K,2)
530 LET F=A(K,3)
540 GOSUB 840
550 IF K>2 THEN 570
560 PRINT "*****"
570 NEXT K
571 LET K=K-1
580 PRINT
590 IF Z <> 0 THEN 2070
600 GO TO 330
610 STOP
620 PRINT "---- ILLEGAL MOVE -- TRY AGAIN ----"
630 PRINT
640 GO TO 330
650 LET T2=0
660 FOR J=1 TO 3
670 FOR I=1 TO 3
680 IF A(I,J)<>0 THEN 700
690 LET T2=T2+1
700 NEXT I
701 LET I=I-1
710 NEXT J
711 LET J=J-1
720 IF T2>0 THEN 750
730 GOSUB 1340
740 GO TO 480
750 IF T2>1 THEN 480
760 FOR J=1 TO 8
770 IF B(J)=2 THEN 800
780 NEXT J
781 LET J=J-1
790 GO TO 730
800 GOSUB 2000
810 GO TO 480
820 REM PRINT TIC-TAC-TOE BOARD ROW.....
830 REM
840 IF B<>0 THEN 910
850 PRINT " * ";
860 IF D<>0 THEN 940
870 PRINT " * ";
880 IF F<>0 THEN 970
890 PRINT " "
900 GO TO 1070
910 IF B>0 THEN 1000
920 PRINT "YOU * ";
930 GO TO 860
940 IF D>0 THEN 1020
950 PRINT "YOU * ";
960 GO TO 860
970 IF F>0 THEN 1040
980 PRINT "YOU"
990 GO TO 900
1000 PRINT"PDP * ";
1010 GO TO 860
1020 PRINT "PDP * ";
1030 GO TO 860
1040 PRINT "PDP"
1050 GO TO 900
1060 REM PRINT LEGENDS..
1070 PRINT " * * "
1080 RETURN
1090 REM PROGRAM TO MAKE MOVE FOR THE MACHINE....
1100 LET M=INT(3.33*RND(M))
1110 LET N=INT(3.33333*RND(N))
1120 IF M=0 THEN 1100
1130 IF M>3 THEN 1100
1140 IF N=0 THEN 1110
1150 IF N>3 THEN 1110
1160 LET C(2)=M
1170 LET D(2)=N
1180 LET C(3)=N
1190 LET D(3)=M
1200 FOR I=1 TO 8
1210 IF B(I)>1 THEN 1370
1220 NEXT I
1221 LET I=I-1
1230 FOR I=1 TO 8
1240 IF B(I)<=1 THEN 1370
1250 NEXT I
1251 LET I=I-1
1260 IF R+C=0 THEN 1550
1270 FOR K=1 TO 11
1280 LET I=C(K)
1290 LET J=D(K)
1300 IF A(I,J)<=0 THEN 1330
1310 LET A(I,J)=1
1320 GO TO 1360
1330 NEXT K
1331 LET K=K-1
1340 PRINT " ... TIE GAME ... "
1350 LET Z=3
1360 RETURN
1370 IF I>3 THEN 1440
1380 FOR J=1 TO 3
1390 IF A(I,J)=0 THEN 1420
1400 NEXT J
1401 LET J=J-1
1410 GO TO 1360
1420 LET A(I,J)=1
1430 GO TO 1360
1440 IF I>6 THEN 1510
1450 FOR J=1 TO 3
1460 IF A(J,I-3)=0 THEN 1490
1470 NEXT J
1471 LET J=J-1
1480 GO TO 1360
1490 LET A(J,I-3)=1
1500 GO TO 1360
1510 IF I>7 THEN 1550
1520 FOR J=1 TO 3
1530 IF A(J,J)=0 THEN 1590
1540 NEXT J
1541 LET J=J-1
1550 IF A(1,3)=0 THEN 1610
1560 IF A(3,1)=0 THEN 1630
1570 LET A(2,2)=1
1580 GO TO 1360
1590 LET A(J,J)=1
1600 GO TO 1360
1610 LET A(1,3)=1
1620 GO TO 1360
1630 LET A(3,1)=1
1640 GO TO 1360
1650 REM PROGRAM TO TEST FOR GAME WINNER...
1660 LET T1=0
1670 FOR J=1 TO 9
1680 LET B(J)=0
1690 NEXT J
1691 LET J=J-1
1700 FOR J=1 TO 3
1710 FOR I=1 TO 3
1720 IF A(J,1)<>A(J,I) THEN 1750
1730 NEXT I
1731 LET I=I-1
1740 LET T1=A(J,I)
1750 NEXT J
1751 LET J=J-1
1760 FOR J=1 TO 3
1770 FOR I=1 TO 3
1780 IF A(1,J)<>A(I,J) THEN 1810
1790 NEXT I
1791 LET I=I-1
1800 LET T1=A(I,J)
1810 NEXT J
1811 LET J=J-1
1820 IF A(1,1)=A(3,3) THEN 1930
1830 IF A(3,1)=A(1,3) THEN 1970
1840 IF T1<=0 THEN 1990
1850 FOR J=1 TO 3
1860 FOR I=1 TO 3
1870 LET B(J)=B(J)+A(J,I)
1880 LET B(J+3)=B(J+3)+A(I,J)
1890 NEXT I
1891 LET I=I-1
1900 NEXT J
1901 LET J=J-1
1910 LET B(7)=A(1,1)+A(2,2)+A(3,3)
1920 RETURN
1930 IF A(2,2)=A(3,3) THEN 1950
1940 GO TO 1830
1950 LET T1=A(2,2)
1960 GO TO 1840
1970 IF A(2,2)=A(1,3) THEN 1950
1980 GO TO 1840
1990 IF T1>0 THEN 2030
2000 PRINT " ...YOU WIN THIS TIME..."
2010 LET Z=1
2020 GO TO 1850
2030 PRINT " ... THE PDP=8 WINS THIS TIME ..."
2040 LET Z=2
2050 GO TO 1850
2060 REM END OF TEST WINNER PROGRAM.....
2070 PRINT "DO YOU WANT TO PLAY ANOTHER GAME: YES(1), NO(0)",
2080 INPUT X1
2090 IF X1 = 1 THEN 250
2100 IF X1 = 0 THEN 2130
2110 PRINT "I SAID ONE OR ZERO! TRY AGAIN",
2120 GO TO 2080
2130 PRINT"IT'S BEEN FUN, COME AGAIN SOMETIME"
2140 GO TO 2160
2150 DATA 2,2,0,0,0,1,1,3,3,1,3,3,1,1,2,3,2,2,3,2,1
2160 CHAIN "DEMON "
2170 END

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