

Connect4FR05 sub-program for Connect4				

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Tests if there is a winner.

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// ##### TESTS IF THERE IS A WINNER #####
LBL A
INV STF 1
INV STF 2
1 +/- STO 99 E'
9 STO 99 E'
1 0 STO 99 E'
1 1 STO 99 E'
1 STO 99 E'
RTN
LBL E'
2 STO 06 D'
1 STO 06 D'
RTN
LBL D'
6 STO 91
LBL STA
7 STO 92
LBL AVR
RCL 91 * 1 0 = + RCL 92 = STO 05
RC* 05 INT X/T 0 EQ YX
A' C'
LBL YX
DSZ 92 AVR
DSZ 91 STA
RTN

// ##### TESTS IF 4 WERE FOUND OR NOT #####
LBL C'
RCL 08 X/T 4 EQ LNX
RTN

// ##### 4 WERE FOUND #####
LBL LNX
RCL 06 X/T
1 EQ DEG

// ##### TI WIN #####
STF 2
RTN

// ##### PLAYER WIN #####
LBL DEG
STF 1
RTN

// ##### LOOKING IF 4 ARE ALIGNED #####
LBL A'
0 STO 08
LBL LOG
RCL 05 B'
IFF 7 COS
RC* 05 INT X/T RCL 06 INV EQ COS
OP 28
RCL 08 X/T 4 EQ LNX
RCL 99 SUM 05
GTO LOG
LBL COS
INV STF 7

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RTN

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// ##### IS THE BOX VALID? #####  
LBL B'  
/ 1 0 = STO 03 INV INT * 1 0 = STO 04  
RCL 03 INT X/T  
6 INV GE X2  
0 EQ X2  
RCL 04 X/T  
0 EQ X2  
8 EQ X2  
RTN  
LBL X2  
STF 7  
RTN
```



L A B E L S		
001	11	A
033	10	E'
044	19	D'
049	78	STA
054	79	AVR
077	45	YX
086	18	C'
095	23	LNx
106	60	DEG
111	16	A'
116	28	LOG
147	39	COS
153	17	B'
190	33	X2

Adr	Branch.	
A'	074	16 A'
AVR	078	97 DSZ
B'	119	17 B'
C'	075	18 C'
COS	120	87 IFF
COS	130	67 EQ
D'	037	19 D'
D'	041	19 D'
DEG	100	67 EQ
E'	012	10 E'
E'	016	10 E'
E'	021	10 E'
E'	026	10 E'
E'	030	10 E'
LNx	091	67 EQ
LNx	138	67 EQ
LOG	144	61 GTO
STA	081	97 DSZ
X2	174	77 GE
X2	177	67 EQ
X2	183	67 EQ
X2	186	67 EQ
YX	072	67 EQ

Reg.	Instr.		
03	158	42	STO
	168	43	RCL
04	166	42	STO
	179	43	RCL
05	065	42	STO
	067	73	RC*
	117	43	RCL
	123	73	RC*
06	142	44	SUM
	035	42	STO
	039	42	STO
	096	43	RCL
08	127	43	RCL
	087	43	RCL
	113	42	STO
91	134	43	RCL
	046	42	STO
92	055	43	RCL
	051	42	STO
99	062	43	RCL
	010	42	STO
	014	42	STO
	019	42	STO
	024	42	STO
	028	42	STO
99	140	43	RCL

