

## The Empty Box

Play				Init.

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The Empty Box - Game of permutations -
=====
1) Initialize                                     E
2) Play                                           box#  A
    Only box #5 must be empty (=zero)
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```
Display : 1 2 3 4 5 6 7 8 9
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Print      :      +---+---+---+
                | 7 | 8 | 9 |
                +---+---+---+
                | 4 | 5 | 6 |
                +---+---+---+
                | 1 | 2 | 3 |
                +---+---+---+

Winning square
                +---+---+---+
                | 1 | 1 | 1 |
                +---+---+---+
                | 1 | 0 | 1 |
                +---+---+---+
                | 1 | 1 | 1 |
                +---+---+---+

```

#	Permutes	#	Permutes	#	Permutes
7	4,5,7,8	8	7,8,9	9	5,6,8,9
4	1,4,7	5	2,4,5,6,8	6	3,6,9
1	1,2,4,5	2	1,2,3	3	2,3,5,6

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00 02 05 04 RTN
00 00 01 03 RTN
00 02 05 06 RTN
00 00 01 07 RTN
02 04 06 08 RTN
00 00 03 09 RTN
00 04 05 08 RTN
00 00 07 09 RTN
00 05 06 08 RTN
LBL B FIX 08 09 STO 00 00 STO 10
LBL YX 01 00 INV PRD 10 RC* 00 SUM 10 DSZ 00 YX
LBL X2 C' RCL 10 R/S

// ##### PLAY #####
LBL A INT STO 00 01 SUM 13 01 X/T RCL 00 INV GE X2
01 00 X/T RCL 00 GE X2
STO 10 00 X/T SBR 1/X 05 PRD 00 05 INV SUM 00 SBR IND 00 STO 00
LBL TAN 01 00 INV PRD 00 RCL 00 STO 10 INT STO 00 RCL 10 INV INT * 01 00 =
STO 10 EQ B
SBR 1/X GTO TAN
LBL 1/X RC* 10 INV EQ IXI
01 .
LBL IXI 00 ST* 10 RTN

// ##### INITIALIZATION #####
LBL E CMS 09 09 OP 43 01 OP 43 OP 59 00 D' 09 OP 41 OP 51 * 01 00 + 01 = INT
LNK INV INT STO 11 09 STO 00 00 X/T
LBL SIN 01 00 PRD 11 RCL 11 INT INV SUM 11 STO 10 EQ COS
01 ST* 10
LBL COS DSZ 00 SIN
B
LBL WRT OP 00 04 07 02 00 02 00 02 00 OP 02 04 07 02 00 02 00 02 00 04 07 OP
03 02 00 02 00 02 00 04 07 00 00 OP 04 OP 05 RTN
LBL C' SBR WRT CLR 06 02 00 00 00 00 + ( RCL 07 + 01 ) = * 01 00 00 = OP 02
CLR 06 02 00 00 00 00 + ( RCL 08 + 01 ) = * 01 00 00 00 00 = + 06 02 = OP 03
CLR ( RCL 09 + 01 ) * 06 INV LOG = + 06 02 00 00 = OP 04 OP 05 SBR WRT CLR 06
02 00 00 00 00 + ( RCL 04
+ 01 ) = * 01 00 00 = OP 02 CLR 06 02 00 00 00 00 + ( RCL 05 + 01 ) = * 01 00
00 00 00 = + 06 02 = OP 03 CLR ( RCL 06 + 01 ) * 06 INV LOG = + 06 02 00 00 =
OP 04 OP 05 SBR WRT CLR 06 02 00 00 00 00 + ( RCL 01 + 01 ) = * 01 00 00 = OP
02 CLR 06 02 00 00 00 00
+ ( RCL 02 + 01 ) = * 01 00 00 00 00 = + 06 02 = OP 03 CLR ( RCL 03 + 01 ) *
06 INV LOG = + 06 02 00 00 = OP 04 OP 05 SBR WRT ADV 01 . 01 01 01 00 01 01
01 01 X/T RCL 10 EQ NOP
RTN
LBL D' OP 00 01 07 03 00 03 03 03 07 04 05 OP 03 00 00 01 04 03 02 04 04 00
00 OP 04 00 OP 05 OP 55 PAU PAU RTN

// ##### YOU WIN #####
LBL NOP INV FIX 00 OP 43 01 04 OP 69 03 06 03 07 03 05 02 06 03 06 OP 04 RCL
13 OP 06 ADV OP 00 OP 42 04 05 03 02 04 01 00 00 01 06 OP 03 02 04 01 06 00
00 02 04 03 07 OP 04 OP 05 OP 55 RTN

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L A B E L S
046 12 B
056 45 YX
070 33 X2
076 11 A
116 30 TAN
146 35 1/X
155 50 IXI
161 15 E
197 38 SIN
216 39 COS
222 96 WRT
263 18 C'
506 19 D'
542 68 NOP

Adr	Branch.
1/X	101 71 SBR
1/X	141 71 SBR
B	139 67 EQ
B	220 12 B
C'	071 18 C'
COS	210 67 EQ
D'	173 19 D'
IXI	150 67 EQ
NOP	502 67 EQ
SIN	217 97 DSZ
TAN	143 61 GTO
WRT	264 71 SBR
WRT	338 71 SBR
WRT	412 71 SBR
WRT	486 71 SBR
X2	088 77 GE
X2	095 77 GE
YX	066 97 DSZ

Reg.	Instr.
00	050 42 STO
	062 73 RC*
	078 42 STO
	085 43 RCL
	093 43 RCL
	104 49 PRD
	108 44 SUM
	113 42 STO
	120 49 PRD
	122 43 RCL
	127 42 STO
	192 42 STO
01	423 43 RCL
02	445 43 RCL
03	466 43 RCL
04	349 43 RCL
05	371 43 RCL
06	392 43 RCL
07	275 43 RCL
08	297 43 RCL
09	318 43 RCL
10	053 42 STO
	060 49 PRD
	064 44 SUM
	072 43 RCL
	097 42 STO
	124 42 STO
	129 43 RCL
	137 42 STO
	147 73 RC*
	157 72 ST*
	208 42 STO
	213 72 ST*
	500 43 RCL
11	189 42 STO
	200 49 PRD
	202 43 RCL
	206 44 SUM
13	081 44 SUM
	564 43 RCL