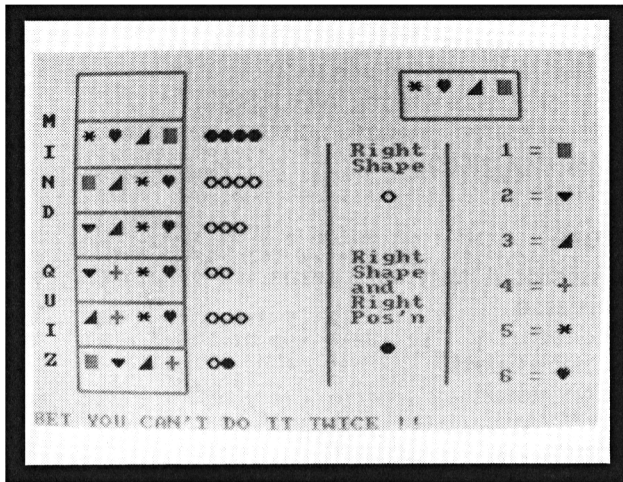


MIND QUIZ



CLASSIFICATION: Memory game

The secret code is a sequence of four shapes chosen from six. Crack the code in less than eight attempts and you have won the game!

A circle means that you have the right shape in the wrong position and a coloured circle indicates the right shape in the right position.

Use the keys numbered '1' to '6' to select a shape. The 'DEL' key can be used to change the shapes entered.

PROGRAMMING SUGGESTIONS

The game could be made more difficult by increasing the number of objects included in the code. Alternatively, if you find this game a little difficult, then try allowing extra guesses, or having different levels of play.

PROGRAM

Variables

CHRVAL(6)	Character values of shapes 1-6
COLS(6)	Colours for shapes
ANSNUM(4)	Answer in digits 1-6
ANSWER(4)	Answer in character values
GUESS(4)	Player's guess
LEVEL, COLUMN	Level (0-6) and column (0-3)
CORSHP	No. of correct shapes in GUESS(4).
CORSHPPOS	No. of correct shapes in correct positions
MES\$	Message string
T(6), I, J	Temps

Program Structure

Lines	Function/Activity
10 — 415	Initialise
430 — 400	Editor
1000 — 1040	Check Guess
1060 — 1120	Print Result
5000 — 5020	Print Message
8000 — 8050	Game lost
9000 — 9040	Game won

Initialise game

```

10  MODE 1 : INK 0, 13 : INK 1, 1 : INK 2, 0 : INK 3, 3
20  PAPER 0 : BORDER 11 : CLS
30  LOCATE 4, 2 : PEN 1
40  GOTO 100
50  PRINT CHR$( 151 ); STRING$( 7, 154 ); CHR$( 157 ); CHR$(
    ( 10 ); STRING$( 9, 8 );
60  PRINT CHR$( 149 ); STRING$( 7, 32 ); CHR$( 149 ); CHR$( (
    10 ); STRING$( 9, 8 );
70  PRINT CHR$( 149 ); STRING$( 7, 32 ); CHR$( 149 ); CHR$( (
    10 ); STRING$( 9, 8 );
90  RETURN
100  FOR I = 1 TO 7 : GOSUB 50 : NEXT
110  PRINT CHR$( 147 ); STRING$( 7, 154 ); CHR$( 153 )
120  LOCATE 4, 2 : PRINT CHR$( 150 ); STRING$( 7, 154 ); CHR
    $( 156 )
130  PEN 2 : LOCATE 2, 5
140  T$ = CHR$( 10 ) + CHR$( 10 ) + CHR$( 8 ) : PRINT "M"; T
    $; "I"; T$; "N"; T$; "D"; T$; "A"; T$; "Q"; T$; "U"; T$;
    "I"; T$; "Z"
150  PEN 1 : FOR I = 7 TO 22 : LOCATE 22, I : PRINT CHR$( 14
    9 ); SPACE$( 7 ); CHR$( 149 ); NEXT
160  LOCATE 27, 2 : PRINT CHR$( 150 ); STRING$( 7, 154 ); CH
    R$( 156 )
170  LOCATE 27, 3 : PRINT CHR$( 149 ); STRING$( 7, 32 ); CHR
    $( 149 )
180  LOCATE 27, 4 : PRINT CHR$( 149 ); STRING$( 7, 32 ); CHR
    $( 149 )
190  LOCATE 27, 5 : PRINT CHR$( 147 ); STRING$( 7, 154 ); CH
    R$( 153 )
200  LOCATE 34, 7 : PRINT "1_▲="; CHR$( 143 )
210  LOCATE 34, 10 : PRINT "2_▲="; : PEN 2 : PRINT CHR$( 245
    ) : PEN 1
220  LOCATE 34, 13 : PRINT "3_▲="; : PEN 3 : PRINT CHR$( 214
    ) : PEN 1
230  LOCATE 34, 16 : PRINT "4_▲="; CHR$( 159 )
240  LOCATE 34, 19 : PRINT "5_▲="; : PEN 2 : PRINT CHR$( 42
    ) : PEN 1
250  LOCATE 34, 22 : PRINT "6_▲="; : PEN 3 : PRINT CHR$( 228
    )
260  PEN 1 : LOCATE 24, 7 : PRINT "Right" : LOCATE 24, 8 : P
    RINT "Shape"
270  LOCATE 24, 14 : PRINT "Right" : LOCATE 24, 15 : PRINT "
    Shape"
280  LOCATE 24, 16 : PRINT "and" : LOCATE 24, 17 : PRINT "Ri
    ght" : LOCATE 24, 18 : PRINT "Pos'n"
290  PEN 2 : LOCATE 26, 10 : PRINT CHR$( 230 )
300  LOCATE 26, 20 : PRINT CHR$( 231 )
305  K = 1
310  I = INT( RND( 1 ) * 6 + 1 )
320  IF T( I ) <> 1 THEN T( I ) = 1 : ANSNUM( K ) = I : ANSW
    ER( K ) = I ELSE 310
330  K = K + 1 : IF K < 5 THEN 310
335  CHRVAL( 1 ) = 143 : CHRVAL( 2 ) = 245 : CHRVAL( 3 ) = 2
    14 : CHRVAL( 4 ) = 159 : CHRVAL( 5 ) = 42 : CHRVAL( 6 )
    = 228
340  FOR I = 1 TO 4
350  ANSWER( I ) = CHRVAL( ANSWER( I ) )

```

```

410 NEXT
415 COLS( 1 ) = 1 : COLS( 2 ) = 2 : COLS( 3 ) = 3 : COLS( 4
      ) = 1 : COLS( 5 ) = 2 : COLS( 6 ) = 3

```

Editor

```

420 :
430 IF INKEY( 79 ) = -1 THEN 440 ELSE IF COLUMN = 0 THEN 43
      0
435 COLUMN = COLUMN - 1 : LOCATE 5 + COLUMN * 2, 21 - 3 * L
      EVEL : PRINT "_" : GOTO 500
440 X$ = INKEY$ : IF X$ < "1" OR X$ > "6" THEN 430
450 PRINT CHR$( 7 ) : GUESS( COLUMN + 1 ) = CHRVAL( VAL( X
      $ ) ) : LOCATE 5 + COLUMN * 2, 21 - 3 * LEVEL : PEN COLS
      ( VAL( X$ ) ) : PRINT CHR$( GUESS( COLUMN + 1 ) ) : COLU
      MN = COLUMN + 1
460 IF COLUMN = 4 THEN MSG$ = "Checking your answer" : GOSU
      B 5000 : FOR I = 1 TO 1000 : NEXT : GOTO 1000
500 FOR I = 1 TO 100 : NEXT : GOTO 430

```

Check guess

```

990 :
1000 CORSHP = 0 : CORSHPPPOS = 0 : FOR I = 1 TO 4
1010 IF GUESS( I ) = ANSWER( I ) THEN CORSHPPPOS = CORSHPPOS
      + 1
1020 NEXT : FOR I = 1 TO 4
1030 IF ANSWER( I ) = GUESS( 1 ) OR ANSWER( I ) = GUESS( 2 )
      OR ANSWER( I ) = GUESS( 3 ) OR ANSWER( I ) = GUESS( 4 )
      THEN CORSHP = CORSHP + 1
1040 NEXT : CORSHP = CORSHP - CORSHPPPOS

```

Print result

```

1050 :
1060 IF CORSHP = 0 THEN 1080
1070 PEN 2 : FOR I = 1 TO CORSHP : LOCATE 13 + I, 21 - 3 * L
      EVEL : PRINT CHR$( 230 ) : NEXT
1080 IF CORSHPPPOS = 0 THEN 1100
1090 PEN 2 : FOR I = 1 TO CORSHPPPOS : LOCATE 13 + I + CORSHP
      , 21 - 3 * LEVEL : PRINT CHR$( 231 ) : NEXT
1100 COLUMN = 0 : LEVEL = LEVEL + 1 : MSG$ = SPACE$( 35 ) :
      GOSUB 5000 : IF CORSHPPPOS = 4 THEN 9000
1110 IF LEVEL = 7 THEN 8000
1120 MSG$ = "Ready when you are" : GOSUB 5000 : GOTO 430

```

Print message

```

4990 :
5000 LOCATE 1, 25 : PEN 1 : PRINT STRING$( 38, 32 )
5010 LOCATE 1, 25 : PRINT MSG$
5020 RETURN

```

Game lost

```
7990 :
8000 MSG$ = "No luck this time!" : GOSUB 5000 : FOR I = 1 TO
0 2000 : NEXT : MSG$ = "Here is the correct answer" : GO
SUB 5000
8010 FOR I = 1 TO 4 : SOUND 1, 50 - 10 * I, 15, 15 : PEN COL
S( ANSNUM( I ) )
8020 LOCATE 26 + 2 * I, 3 : PRINT CHR$( ANSWER( I ) ) : NEXT

8030 FOR I = 1 TO 2500 : NEXT
8040 MSG$ = "Press a key for another game" : GOSUB 5000
8050 IF INKEY$ = "" THEN 8050 ELSE RUN
```

Game won

```
8990 :
9000 MSG$ = "SUPERB!!!!!!!!!!!!!!!!!" : GOSUB 5000
9010 FOR I = 1 TO 4 : SOUND 1, 30 - 5 * I, 45, 15 : PEN COLS
( ANSNUM( I ) )
9020 LOCATE 26 + 2 * I, 3 : PRINT CHR$( ANSWER( I ) ) : FOR
J = 1 TO 400 : NEXT : NEXT
9030 MSG$ = "BET YOU CAN'T DO IT TWICE!!!" : GOSUB 5000
9040 IF INKEY$ = "" THEN 9040 ELSE RUN
```

ChexSum Tables

10 = 1322	280 = 3158	1060 = 1439
20 = 570	290 = 1385	1070 = 4606
30 = 514	300 = 1160	1080 = 1701
40 = 322	305 = 470	1090 = 5697
50 = 3339	310 = 1746	1100 = 5487
60 = 3207	320 = 5026	1110 = 1394
70 = 3207	330 = 1984	1120 = 3136
80 = 201	335 = 6745	4990 = 0
100 = 1428	340 = 976	5000 = 1392
110 = 2136	350 = 2709	5010 = 896
120 = 2422	410 = 176	5020 = 201
130 = 516	415 = 4802	7990 = 0
140 = 6752	420 = 0	8000 = 7589
150 = 3741	430 = 3393	8010 = 3904
160 = 2456	435 = 4942	8020 = 2673
170 = 2327	440 = 2950	8030 = 1366
180 = 2328	450 = 11130	8040 = 3647
190 = 2453	460 = 6232	8050 = 1682
200 = 1549	500 = 1658	8990 = 0
210 = 2521	990 = 0	9000 = 2169
220 = 2687	1000 = 2934	9010 = 3930
230 = 1588	1010 = 4648	9020 = 4013
240 = 2394	1020 = 1153	9030 = 2793
250 = 2222	1030 = 10220	9040 = 1652
260 = 2458	1040 = 2715	
270 = 2259	1050 = 0	TOTAL = 200598