

# 04510D PROGRAM DESCRIPTION I

Page 1 of 8

Program Title GUESS THE CARD SUIT

Contributor's Name Otto X. Dobnick

Address 3171 - S. 83 Street

City Milwaukee, State Wis. Zip Code 53219

## Program Description, Equations, Variables

A simple game wherein one tries to guess the SUIT of a card dealt.

There are no card repetitions. A \$5.00 bet is automatically made for each guess, and winnings and losses status is displayed after each bet.

Value: A, 2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K.

Code: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

Suit: spades, hearts, diamonds, clubs.

Code: n.1, n.2, n.3, n.4.

Necessary Accessories none

## Operating Limits and Warnings

Make certain registers are always restored to their original positions.

## Reference(s)

This program has been verified only with respect to the numerical example given in *Program Description II*. User accepts and uses this program material AT HIS OWN RISK, in reliance solely upon his own inspection of the program material and without reliance upon any representation or description concerning the program material.

NEITHER HP NOR THE CONTRIBUTOR MAKES ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND WITH REGARD TO THIS PROGRAM MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NEITHER HP NOR THE CONTRIBUTOR SHALL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THIS PROGRAM MATERIAL.

PRELIMINARY INSTRUCTIONS: LOAD CARD, 2 SIDES IF NOT ALREADY LOADED.

**SOLUTION:**

[illegible]

04510D

**PROGRAM DESCRIPTION II**  
**(CONTINUATION PAGE)**

Page 3 of 8

Let's have problem 2, but try to guess the suits of 5 cards.

We have 2 alternatives, i.e., continue with the preceding deck since 48 cards remain in the deck or start from scratch.

Let's start from scratch as we may have better luck.

Since the program is loaded our first step will be initialization and shuffle of the deck.

INPUT	FUNCTION	DISPLAY	COMMENTS
	[E]	18.0	initialization & shuffle
0.985	[STO][A]	1.0	seed, $0 \leq S < 1$
	[A]	0.0	1st unknown card
0.1	[B]	5.0	correct, \$5.00 total credit
	[A]	0.0	2nd unknown card
0.2	[B]	10.0	correct, \$10.00 total credit
	[A]	0.0	3rd unknown card
0.3	[B]	15.0	correct, \$15.00 total credit
	[A]	0.0	4th unknown card
0.4	[B]	20.0	correct, \$20 total credit
	[A]	0.0	5th unknown card
0.1	[B]	25.0	correct, \$25 total credit
Five correct guesses out of five. The odds are almost phenomenal.			
Go ahead! See if you can outguess the RNG.			

				SIZE:
STEP	INSTRUCTIONS	INPUT	FUNCTION	DISPLAY
1	Load card, 2 sides			
2	Initialize & shuffle		[E]	18.0
3	Seed	0<S<1	[STO][A]	0.n
4	Generate card		[A]	0.0
5	Bet	0.n	[B]	±n.0
6	Continue step 5 until desired			
	number of cards have been			
	generated OR until all 52 cards			
	are used at which 52nd card			
	DSP = 0.000000000			
	OR			
	Start new deal by doing			
	steps 2 thru 5 or 6.			
	WINNINGS or LOSSES are displayed			
	after each bet automatically, viz.,			
	±n.0			
	To see number of cards dealt		[RCL][0]	n.0
	TO CHEAT:			
	R <sub>C</sub> displays card code and R <sub>B</sub>			
	displays suit code when divided			
	by 10.			
	Alternatively the card and suit			
	are available from R <sub>SG</sub> , i.e., n.n.			
	Make certain the registers are			
	restored to their original			
	positions after CHEATING!			

☒ 67   ☐ 97   ☐ 41C

STEP/ NE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS	STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS
* 01	F LBL A	31 25 11	select card	51	RCL (i)	34 24	deal card
	5	05	one less than		RCL D	34 14	if not
	1	01	ALL cards dealt		÷	81	dealt, else
	RCL 0	34 00			g FRAC	32 83	generate
	g x>y	32 81			F x=0	31 51	another
	GTO 0	22 00			GTO 3	22 03	card
	4	04			RCL D	34 14	
	STO E	33 15	generate suit,		STO X(i)	33 71 24	
			0.1-0.4		RCL C	34 13	
* 10	F LBL 1	31 25 01		60	RCL B	34 12	
	F GSB 2	31 22 02			1	01	
	STO B	33 12			0	00	
	h ST I	35 33			÷	81	display
	1	01	one less than #		+	61	card.suit
	2	02	of cards/suit		F P↔S	31 42	
	RCL (i)	34 24			STO B	33 08	
	g x>y	32 81	suit used up?		F P↔S	31 42	
	GTO 1	22 01	Yes, regenerate		CLx	44	
	g ISZ(i)	32 34			h RTN	35 22	
	1	01		* 70	F LBL 2	31 25 02	
20	STO + 0	33 61 00			RCL A	34 11	
	RCL 0	34 00			9	09	
	5	05	limits total #		9	09	
	2	02	of cards		7	07	
	g x=y	32 51	last card?		X	71	
	DSP 9	23 09	YES, DSP 9		g FRAC	32 83	
	1	01	limit # of		STO A	33 11	
	3	03	cards/suit		RCL E	34 15	
	STO E	33 15			X	71	
* 30	F LBL 3	31 25 03		80	1	01	
	F GSB 2	31 22 02			+	61	
	STO C	33 13			F INT	31 83	
	4	04			h RTN	35 22	
	+	61	prepare to	* 90	F LBL E	31 25 15	
	h ST I	35 33	access card		F CL REG	31 43	
	RCL B	34 12	registers		F P↔S	31 42	
	2	02			F CL REG	31 43	
	g x=y	32 51			STO A	33 11	
	GTO 7	22 07			5	05	
	g x≤y	32 71		90	h ST I	35 33	
40	GTO 4	22 04		* 100	F LBL 8	31 25 08	
	7	07	prepare		g ISZ(i)	32 34	
	GTO 7	22 07	suit code		F ISZ	31 34	
* 50	F LBL 4	31 25 04			1	01	
	RCL B	34 12			7	07	
	3	03			h RC I	35 34	
	g x=y	32 51			g x≤y	32 71	
	GTO 7	22 07			GTO 8	22 08	
	5	05			DSP 1	23 01	
* 60	F LBL 7	31 25 07		100	h RTN	35 22	
50	STO D	33 14					

04510D  
☒ 67    ☐ 97    ☐ 41C

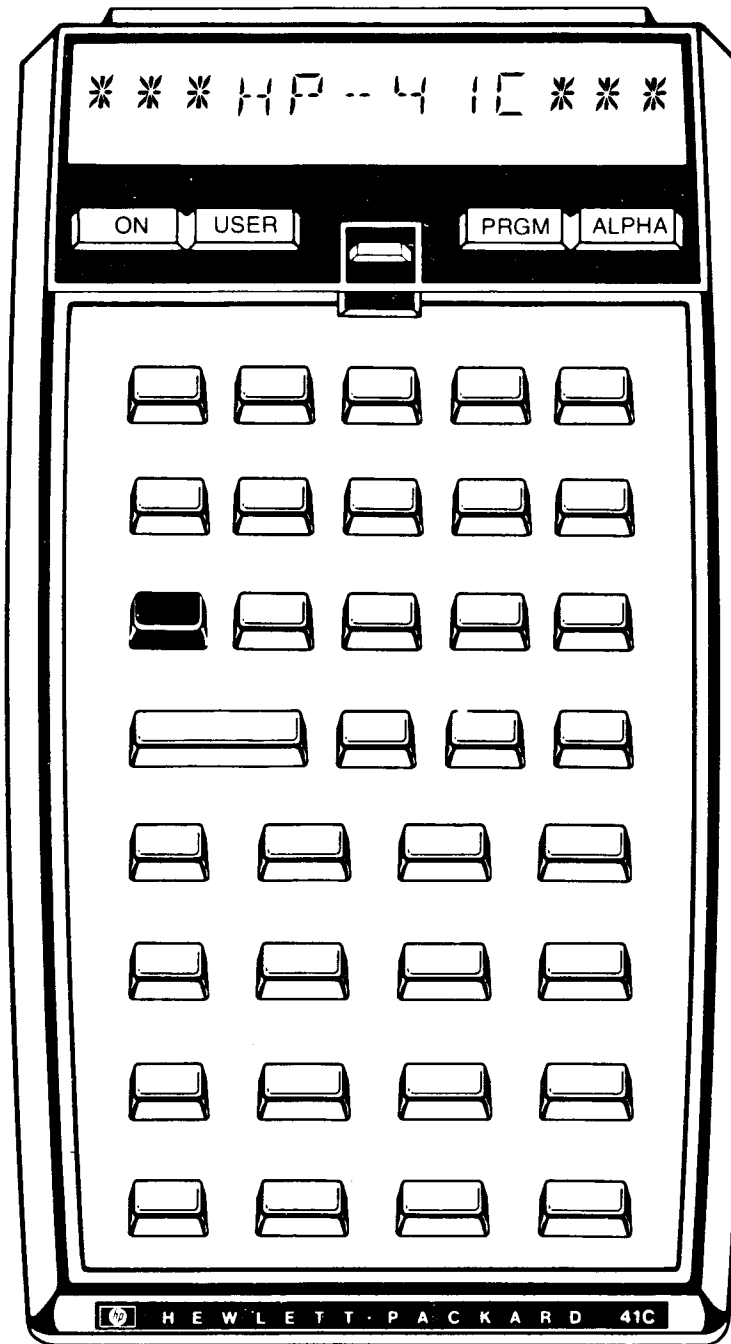
# PROGRAM LISTING

Page 6 of 8

[illegible]



# KEYBOARD CARD LABELING



KEYBOARD

SYSTEM  
CONFIGURATION



CARD

1

2

GUESS THE CARD SUIT

CARD
GUESS
INITIAL.