

WORD BAGELS

DATA CARD SIDE #1

3 Pie
4 Move
3 Rat
3 The
4 Card
3 Bus
3 Sky
3 Has
4 Left
3 Aid
4 Knot

DATA CARD SIDE #2

3 Jay
3 Her
4 Omen
3 Tin
3 Tan
3 Fun
3 Ton
4 Save
4 Blue
3 Man
3 Wax

Program Description I

Program Title WORD BAGLES

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Program Description, Equations, Variables WORD BAGLES IS A GAME WHERE YOU TRY TO GUESS A 3 TO 5 LETTER WORD. AFTER EACH GUESS YOU ARE EITHER TOLD THAT YOU GOT THE ^{WORD} IN A GIVEN NUMBER OF GUESSES OR YOU WILL BE GIVEN A CLUE TELLING JUST HOW GOOD YOUR GUESS WAS. THE CLUE TELLS YOU THE NUMBER OF LETTERS THAT YOU HAVE GUESSED IN THEIR EXACT POSITION AND THE NUMBER OF LETTERS THAT YOU HAVE GUESSED BUT ARE IN THE WRONG POSITION. FOR EXAMPLE, IF THE WORD IS "WIND" AND YOU GUESS "DINE", THE CLUE WOULD BE 1.2 (YOU HAVE THREE OF THE LETTERS. 1 IS IN THE CORRECT POSITION AND 2 ARE NOT). THE LOGIC INVOLVED IN DISCOVERING THE WORD IS QUITE CHALLENGING. IT IS SURPRISING HOW MUCH MORE DIFFICULT ~~THAT~~ 4 LETTER WORDS ARE THAN 3. WORDS WITH 5 LETTERS ARE MORE THAN ENOUGH TO DRIVE YOU CRAZY! THIS PROGRAM USES THE WORD ENCODER PROGRAM TO CREATE DATA CARDS WITH WORDS ON THEM. AN ALPHA OVERLAY IS USED TO MAKE LETTER ENTRY EASY.

Operating Limits and Warnings WORDS CAN HAVE FROM 1 TO 5 LETTERS BUT PLAYING WITH LESS THAN 3 IS IMPRACTICAL. WORDS MUST NOT HAVE TWO LETTERS ALIKE. THIS PROGRAM WILL NOT FUNCTION WITHOUT THE WORD GAME SUBROUTINE (IN USER'S LIBRARY).

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.

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Program Description II

Sketch(es)

ABC	DEF	GHI
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JKL	MNO	PQR
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STU	VWX	YZ, BLK
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

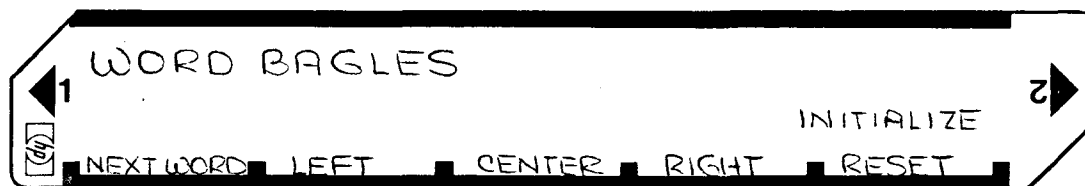
TO MAKE OVERLAY, COPY THIS PAGE, THEN COVER OVERLAY WITH CLEAR TAPE, OR BETTER - COVER FRONT AND BACK WITH CLEAR PLASTIC SHEET AVAILABLE AT OFFICE SUPPLY STORES. CUT ON LINES.

Sample Problem(s) NORMALLY, WORDS ARE PREPARED BY THE WORD ENCODER PROGRAM AND WRITTEN ONTO DATA CARDS THAT ARE THEN READ BY THE WORD GAME SUBROUTINE USED BY THIS PROGRAM. HOWEVER, FOR THIS SAMPLE WE WILL "FOOL" THE SUBROUTINE INTO THINKING THAT A WORD DATA CARD HAS ALREADY BEEN READ.

Solution(s) 1) LOAD SIDE 1 AND SIDE 2, THEN INITIALIZE BY PRESSING ☐ f ☐ e .
2) "FOOL" THE PROGRAM INTO THINKING A CARD WAS PREVIOUSLY READ BY DOING THE FOLLOWING: 1, ☐ S ☐ A ; .03141710 ☐ S ☐ C .
3) SELECT NEXTWORD - ☐ A → DISPLAY WILL FLASH 3 (LETTERS IN WORD).
4) GUESS "PIN" - 6 ☐ B 9 ☐ D 5 ☐ C → 0.1 (1 OUT OF POSITION)
5) GUESS "TAP" - 1 ☐ C 7 ☐ B 6 ☐ B → 0.1 (1 OUT OF POSITION)
6) GUESS "NOT" - 5 ☐ C 5 ☐ D 1 ☐ C → 2.0 (2 IN CORRECT POSITION)
7) GUESS "NET" - 5 ☐ C 8 ☐ C 1 ☐ C → -4 (ALL CORRECT IN 4 GUESSES)

Reference(s) 65 NOTES, VOL.2 NO.3, PUBLISHED BY HP-65 USERS CLUB, 2541 W. CAMDEN PLACE, SANTA ANA, CALIFORNIA 92704

SEE WORD GAME SUBROUTINE FOR DOCUMENTATION ON HOW IT FUNCTIONS.



STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1	LOAD SIDE 1 AND SIDE 2		<input type="text"/> <input type="text"/>	
2	PLACE ALPHA OVERLAY OVER KEYS 1-9		<input type="text"/> <input type="text"/>	
3	INITIALIZE (FIRST TIME ONLY) OR RESET (TO PERMIT WORD SELECTION) (RESET ALSO USED TO START OVER WORD GUESS)		<input type="text"/> <input type="text"/>	0
4	SELECT NEXT WORD. IF YOU HAVE JUST INITIALIZED OR THERE ARE NO MORE WORDS, A PAUSE LOOP WITH A ZERO DISPLAY WILL BE EXECUTED UNTIL YOU READ IN A DATA CARD WITH MORE WORDS. FINALLY, DISPLAY WILL FLASH THEN NUMBER OF LETTERS IN THE WORD. IF DISPLAY SHOWS "error", A WORD WITH MORE THAN FIVE LETTERS HAS BEEN FOUND. AFTER CLEARING "error", JUST PRESS [A] AGAIN.		<input type="text"/> <input type="text"/>	LETTERS
5	GUESS. ENTER THE WORD YOU WANT TO TRY ONE LETTER AT A TIME. AFTER YOU YOU HAVE ENTERED THE CORRECT NUM- BER OF LETTERS, THE WORD WILL BE COMPARED. A LETTER IS ENTERED BY PRESSING THE DIGIT KEY THAT HAS THE REQUIRED ^{LETTER} ABOVE IT, FOLLOWED BY [B] IF IT IS THE LEFT OF THE THREE LETTERS, [C] IF IT IS THE CENTER, OR [D] IF IT IS THE RIGHT. WHEN THE PROGRAM STOPS, THE DISPLAY WILL HAVE: 1) THE CLUE. THE NUMBER TO THE LEFT OF THE DECIMAL IS THE LETTERS YOU HAVE GUESSED IN THEIR CORRECT POSITION AND THE NUMBER TO THE RIGHT IS THE LETTERS YOU HAVE GUESSED BUT ARE NOT IN THEIR CORRECT POSITION. 2) THE NUMBER OF GUESSES IT TOOK YOU (THE NUMBER IS NEGATIVE).	1-9	<input type="text"/> <input type="text"/> -OR- <input type="text"/> <input type="text"/> <input type="text"/> -OR- <input type="text"/> <input type="text"/> <input type="text"/>	CLUE -OR- GUESSES

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	* F LBL A	312511	SELECT NEXT WORD. CALLS WORD GAME SUBROUTINE FOR WORD. CLEARS GUESS LETTERS AND COUNT.		I	01	
	h F? O	357100			STO D	3314	
	GTO fd	223114			CLX	44	
	6	06		060	RCL I	3401	
	STO 8	3308			9X=Y	3251	
	f GSB 3	312203			GTO 2	2202	
	CLX	44			CLX	44	
	STO 1	3301			RCL 2	3402	
	STO 2	3302			9X=Y	3251	
010	STO 3	3303			GTO 2	2202	
	STO 4	3304			CLX	44	
	STO 5	3305			RCL 3	3403	
	STO 8	3308			9X=Y	3251	
	5	05		070	GTO 2	2202	
	RCL B	3412			CLX	44	
	9X>Y	3281			RCL 4	3404	
	GTO fd	223114			9X=Y	3251	
	h STI	3533			GTO 2	2202	
	h SFO	355100			CLX	44	
020	DSP O	2300	RIGHT		RCL 5	3405	CHECK LOOP COM- PLETION. IF CLOE = LETTERS, DISPLAY MINUS GUESSES, ELSE DISPLAY CLOE.
	f-X-	3184		080	* F LBL I	312501	
	h RTN	3522			f DSZ	3133	
	* F LBL D	312514	CENTER		GTO O	2200	
	9	09			DSP I	2301	
	+	61			RCL B	3412	
	* F LBL C	312513	LEFT. STORES LETTER IN PROPER REGISTER AND RETURNS IF NOT COMPLETE. ELSE ADDS TO GUESS COUNT AND STARTS COMPARE LOOP.		h STI	3533	
	9	09			RCL O	3400	
	+	61			9X≠Y	3261	
030	* F LBL B	312512			h RTN	3522	
	STO (i)	3324			h CFO	356100	
	CLX	44		090	DSP O	2300	
	f DSZ	3133			RCL 8	3408	
	h RTN	3522			f-X-	3184	
	STO O	3300			h RTN	3522	
	I	01			* F LBL 2	312502	ADD TO CLOE
	STO-8	335108			RCL D	3414	
	RCL 6	3406			STO+O	336100	
	STO 7	3307			GTO I	2201	INITIALIZE
	RCL B	3412			* 9 LBL e	322515	
040	h STI	3533			f CL REG	3143	
	* F LBL O	312500	COMPARE LOOP. FIRST CHECKS FOR MATCH IN CORRECT POSITION, THEN CHECKS OTHERS.		* F LBL E	312515	RESET
	I	01		100	h CFO	356100	
	STO D	3314			RCL B	3412	
	RCL 7	3407			h STI	3533	
	EEX	43			CLX	44	
	2	02			h RTN	3522	WORD GAME SUB- ROUTINE MUST BE LINKED INTO STEP 105
	X	71					
	9 FRAC	3283					
	STO 7	3307					
050	h LST X	3582					
	f INT	3183					
	RCL (i)	3424					
	9X=Y	3251					
	GTO 2	2202		110			
	h X≠Y	3552					
	.	83					

REGISTERS

0 CLOE	1 GUESS LETTER 5	2 GUESS LETTER 4	3 GUESS LETTER 3	4 GUESS LETTER 2	5 GUESS LETTER 1	6 WORD	7 WORK AREA	8 GUESS COUNT	9
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D USED	E	I LOOP CONTROL				

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LABELS					FLAGS	SET STATUS		
A NEXT WORD	B LEFT	C CENTER	D RIGHT	E RESET	F OFF = NEXT WORD OK	ON OFF		DISP
a	b	c	d "error"	e INITIALIZE	1	0 <input type="checkbox"/> <input checked="" type="checkbox"/>	DEG <input checked="" type="checkbox"/>	FIX <input checked="" type="checkbox"/>
0 COMPARE LOOP	1 CHECK COMPLETION	2 ADD TO SELF	3	4	2	1 <input type="checkbox"/> <input checked="" type="checkbox"/>	GRAD <input type="checkbox"/>	SCI <input type="checkbox"/>
5	6	7	8	9	3	2 <input type="checkbox"/> <input checked="" type="checkbox"/>	RAD <input type="checkbox"/>	ENG <input type="checkbox"/>
						3 <input type="checkbox"/> <input checked="" type="checkbox"/>		n <u>9</u>