

Program Title

Monopoly

Contributor's Name

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Program Description, Equations, Variables

Monopoly is the most popular board game in the world! Now you can play this real estate game on a HP-67 or HP-97. First a brief go-over of the rules. Both players start at square 0 with \$1500. Then both players take turns "throwing" the dice and move the appropriate number of squares. If the square has a name on it such as ORIENTAL AVENUE or PARK PLACE it is considered PROPERTY. PROPERTY may be purchased, left unpurchased, or if another player owns it, you must pay rent. PROPERTY can be improved by building HOUSES or putting a fifth HOUSE on a piece of property is the same as building a HOTEL. The more houses on property the higher the rent. One thing about building property. All the property squares of a color group must be owned before HOUSES may be purchased. For example, you must own both PARK PLACE and BOARDWALK before you build HOUSES. This program doesn't check for this though. Suppose you landed on square 4 (INCOME TAX), the calculator will subtract 10% of your cash to pay the tax. (The 10% amount may be increased cont.)

Operating Limits and Warnings

In this program you can't buy property if you aren't on it. Be careful when you buy because the wrong square # could mess you up. It is possible to buy GO (square 0), JAIL (square 10), and FREE PARKING and this could screw up the game. Make sure you don't buy any of these. If you land on property that has been mortgaged, the rent plus some number will be subtracted from cont.

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01816D Program Description I

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Program Description, Equations, Variables to 40% to make the game more realistic). Square numbers 2, 7, 17, 22, 33, 36 (COMMUNITY CHEST and CHANCE are combined in this program) provide the player with an automatic GO TO JAIL, ADVANCE TO GO, or a monetary value of \$-75 up to \$150 in increments of \$25. Square 10 is either IN JAIL or JUST VISITING. JUST VISITING is when you land on square 10 with your dice throw. IN JAIL is when you land on either square 30 (GO TO JAIL) or land on CHANCE, COMMUNITY CHEST and are sent there. Three doubles in a row don't put you in jail in this program. Doubles doesn't give you an extra turn either. If you land on JUST VISITING, a '10' will be displayed to indicate it. FREE PARKING is also displayed with a '20'. The rent charged is different from the amount charged in the board game. It's not much different from the Parker Brothers version. In the real game the rent is doubled if all of a color group is owned and all lots are unimproved. In this program this feature is ignored. NOW, SOME FEATURES OF THE PROGRAM!

continued

Operating Limits and Warnings

the person on the square and added to the owner. To correct this add and subtract to the proper memory.

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Program Description, Equations, Variables

The 40 board positions are stored in twenty registers (R₀-R₃₉) in the following form. Board positions 0-19 are stored in the format RRROH where RRR is the cost of the property, O is the owner of the property, and H is the number of houses or, in the case of CHANCE, COMMUNITY CHEST, INCOME TAX, GO TO JAIL, and LUXURY TAX the label of each is stored in the 3rd R so a GTO(i) transfers to that function. Positions 0-19 are stored in registers R₀-R₃₉. Position 20-39 are stored in the same format except the five position number is stored. RRROH. When you MORTGAGE property you get 1/2 of its purchase price and nothing for houses. If you BUY BACK MORTGAGE the original purchase price is charged. If you land on property that is owned by the other player the rent charged will be displayed when execution halts. If you own the property CCG.OH is displayed where CCG is the cost, o is the owner, and H is the # of houses. If you land on CHANCE or COMMUNITY CHEST and -50 is displayed cont.

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Program Description, Equations, Variables this means you have just lost \$50. The program makes no provisions for telling if a player is "busted", or for exchanging money or property. To exchange property, for example, Player 1 owns ORIENTAL AVENUE and has 2 HOUSES on it. Suppose Player 1 is broke and sells ORIENTAL to Player 2. ORIENTAL is the 6th board position so RCL 6 to access its information. Register 6 contains 10012.26000 where
1 2 3 4 5 6 7 8 9 10

1-3 is the cost of ORIENTAL (\$100), 4 is the owner (1), and 5 is the number of HOUSES (2). 6-10 is the info on ATLANTIC AVENUE which is not owned. To exchange ~~own~~ owners, simply change position 4 from 1 to 2 and re-store it in R6. R6 now contains 10022.26000. To exchange money the only thing you need to know is Player 1 has R1 for his money and board placement. These are stored in the form MMMM.PP where M(4) is the money and PP is the board placement. Player 2 uses R3. Add and Subtract from them to exchange money. Another warning about ~~cont.~~

Operating Limits and Warnings _____

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Program Description, Equations, Variables

moving. Don't buy property, houses, hotels or buy back a mortgage unless you have first moved. If you don't move first the other player will be the one buying the property or mortgage. If you land on income tax, execution will halt with the amount charged. If you land on CHANCE or COMMUNITY CHEST and see 1505.00, for example, you have advanced to go and have \$1505 and are on square 0. However, if you see 1350.10, you have been sent to jail and have \$1350 and are on square 10. If you land on LUXURY TAX, \$75 is deducted and your money and board position are shown. The game is self-explanatory so no problems should arise. PROPERTY will display a player's number, the lot he owns, and the number of houses on it. STATUS simply displays Player 1's cash and board position and the Player 2's. On a jail stay \$50 is deducted and you are free to go. If you land on property you own, a 5 is added to the first digit of the cost when it is displayed.

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01816D Program Description II

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Sketch(es)

Sample Problem(s) SAMPLE GAME (page 19 has a sample board)

Load MONOPOLY DATA CARD

Store seed ($0 \leq \text{seed} \leq 1$) .987 STO E

Load MONOPOLY I

Player 1 throws the dice first A 1.00* (player 1)

Doubles don't give you an extra turn 1.00* (dice throw 1)

1.00* (dice throw of 1)

Square 2 is Community Chest

0.02* (player 1 is on 2)

Player 1 lost \$75 on COMMUNITY CHEST

-75.00 (lost \$75)

Player 2 throws the dice A

2.00* (player 2)

5.00* (throws a 5)

6.00* (throws a 6)

Square 11 is ST. CHARLES PLACE

0.11* (player 2 on square 11)

ST. CHARLES PLACE costs \$140

140.00* (square 11 costs \$140.00)

Player 2 has \$1500 and is on square 11 1500.11

Load MONOPOLY II (to buy ST. CHARLES)

Buy ST. CHARLES PLACE A 0.00 (signifies player 2 owns it)

Load MONOPOLY I

Player 1 throws the dice A 1.00* (player 1)

5.00* (throws a 5 and a 2)

2.00* (5 and a 2)

Player 1 is on square 9

0.09*

CONNECTICUT AVENUE costs \$120

120.00*

Player 1 has \$1425 and is on square 9 1425.09

LOAD MONOPOLY II

Player 1 buys CONNECTICUT AVENUE A 0.00

LOAD MONOPOLY I

-continued-

* denotes a PAUSE

Sketch(es)

Sample Problem(s)	Player 2 throws the dice	A	2.00* (player 2)
			3.00* (throws a)
			2.00* (3 and a 2)
	Player 2 is on square 16 (ST. JAMES PLACE)		0.16*
	ST. JAMES PLACE costs \$180		180.00*
	Player 2 has \$1360 and is on square 16		1360.16
	LOAD MONOPOLY II		
	Player 2 buys ST. JAMES PLACE	A	0.00
	LOAD MONOPOLY I		
	Player 1 throws the dice	A	1.00* (Ply. 1)
			2.00* (rolls a)
			4.00* (2 & 4)
	Player 1 is on PENNSYLVANIA RAILROAD		0.15*
	PENNSYLVANIA RAILROAD costs \$200.00		200.00*
	Player 1 has \$1305 and is on square 15		1305.15
	Load MNPLY II		
	Buy PENNSYLVANIA RAILROAD	A	0.00
	Load MNPLY I		
	Player 2 throws the dice	A	2.00* (player 2)
			5.00* (roll a)
			1.00* (5 & a 1)
	and is on CHANCE		0.22*
	Player 2 has \$1380 and is on GO (CHANCE advanced him to go.)		1380.00

Player 1 throws the dice	A	1.00* (player 1)
		6.00* (throws a)
		4.00* (6 and a 4)
Player 1 is on B&O RAILROAD and		0.25*
it costs \$200		200.00*
\$1105 and on square 25		1105.25

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Sketch(es)

Sample Problem(s) LOAD MNPLY II

Buy B90 RAILROAD A 0.00

Load MNPLY I

Player 2 moves A 2.00* (player 2)

6.00* (rolls 6)
5.00* (and 5)

Player 2 is on ST. CHARLES PLACE

0.11*

#140 is the cost but .2 shows he owns it

140.20*

Player 2 has \$1380 and is on square 11

1380.11

Player 1 moves A

1.00* (player 1)

4.00* (a 4 & 3)
3.00*

Player 1 is on NORTH CAROLINA AVENUE

0.32*

the cost is \$300

300.00*

Player 1 has \$905 and is on 32

905.32

LOAD MNPLY II

BUY N.C. AVE. A

0.00

LOAD MNPLY I

Player 2 rolls the dice A

2.00* (player 2)

2.00* (rolls a)
4.00* (2 and a 4)

Player 2 is on COMMUNITY CHEST

0.17*

Player 2 loses \$75

-75.00

Player 1 rolls A

1.00* (player 1)

1.00* (rolls a)
4.00* (1 and a 4)

Player 1 is on PARK PLACE

0.37*

PARK PLACE sells for \$350.00

350.00*

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Sketch(es)

Sample Problem(s)	Player 1 has \$605 and is on 37	605,37
LOAD MNPLY II		
Buy Park Place	A	0.00
check STATUS	C	(player 1) 255.37*
		(player 2) 1305.17*
Check to see who owns	E	1.00* (player 1)
what PROPERTY		37.00* (owns square 37)
		0.00* (no houses)
PROPERTY on MONOPOLY II		2.00* (player 2)
		16.00* (owns square 16)
will search each piece of property		0.00* (no houses)
		1.00* (player 1)
and display the Player's #, the		15.00* (owns 15)
		0.00* (with no houses)
square square # of the property, and		1.00* (player 1)
		32.00* (owns 32)
the number of houses on that		0.00* (no houses)
		2.00* (player 2)
piece of property (# of houses might		11.00* (owns 11)
		0.00* (no houses)
not apply to some plots).		1.00* (player 1)
		9.00* (owns 9)
		0.00* (no houses)

Reference(s)

1.00* (player 1)
25.00* (owns 25)
0.00* (no houses)
0.00 (execution halts)

-cont-

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Sketch(es)

Sample Problem(s) LOAD MNPLY I

Player 2 throws the dice A 2.00* (player 2)
2.00* (throws)
5.00* (a 2 & 5)

Player 2 is on ILLINOIS AVENUE 0.24*
cost is \$240 240.00*

Player 2 has \$1305 and is on 24 1305.24-

LOAD MNPLY II

Buy ILLINOIS AVENUE A 0.00

LOAD MNPLY I

Player 1 throws the dice A 1.00* (player 1)
5.00* (dice
+ throws of
5 and 2)
2.00*

Player 1 is on INCOME TAX (oh-oh!) 0.04*

~~Solution(s)~~ Player 1 loses \$45.00 to the taxman 45.00

Player 2 throws the dice A 2.00* (player 2)
4.00* (throws a
3, 00* (4 and 3))

Player 2 is on PACIFIC AVENUE 0.31*
300.00*

Player 2 has \$1065 and is on 31 1065.31

Load MNPLY II

Buy PACIFIC AVENUE A 0.00

Reference(s) Load MNPLY I

Player 1 rolls A 1.00* (player 1)
5.00* (throws a 5)
5.00* (a 5)

Player 1 is on VIRGINIA AVENUE 0.14*
this ends the sample run, continue play if you like

[illegible]

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Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	* F LBL A	31 25 11	player's # is displayed, and two cards are displayed. Number of dice are moved and if you've circled the board you are given \$200. The new board position is displayed		EEX	43	If opponent doesn't own property, the price is shown and the player's money and board position
	9 GSBF e	32 22 15			Z	82	
	h PAUSE	35 72			=	81	
	9 GSBF d	32 22 14		060	h PAUSE	35 72	
	h PAUSE	35 72			RCL (i)	34 24	
	9 GSBF d	32 22 14			R/S	84	Players # who is moving is stored and returned
	h PAUSE	35 72			* 9 LBLF e	32 25 15	
	+	61			RCL D	34 14	
	F GSB S	31 22 05			I	01	
010	EEX	43			9 X=Y	32 51	
	Z	82	the board square is recalled and transfer occurs if CHANCE, COMMUNITY CHEST, INCOME TAX, LUXURY TAX, GO TO JAIL		+	61	a random # in the range 0-1 is multiplied by 6 and added to by i to give a dice throw.
	=	81			STO D	33 14	
	STO + (i)	33 61 24			h RTN	35 22	
	RCL (i)	34 24		070	* 9 LBLF d	32 25 14	
	9 FRAC	32 83			h TR	35 73	the player's status is accessed through the I-register
	.	83			RCL E	34 15	
	4	04			+	61	
	9 X=Y	32 71			9 X ²	32 54	
	9 GSBF C	32 22 13			9 FRAC	32 83	
020	h RV	35 53	property is checked to see if the other player owns it, if so, transfer occurs.		STO E	33 15	1/6 th the time adv. to go or go to jail occurs. If not a random # is worked on to find a cash value to be added to the player's score.
	h PAUSE	35 72			6	06	
	.	83			X	71	
	Z	82			I	01	
	9 X=Y	32 71		080	+	61	
	h SF 2	35 51 02			F INT	31 83	
	9 X>Y	32 81			h RTN	35 22	
	CLX	44			* F LBL S	31 25 05	
	-	51			I	01	
	EEX	43			9	09	
030	Z	82			RCL D	34 14	
	X	71			+	61	
	h ST I	35 33			h ST I	35 33	
	RCL (i)	34 24			h RV	35 53	
	h F? 2	35 71 02		090	h RTN	35 22	
	9 GSBF b	32 22 12			* F LBL O	31 25 00	
	F INT	31 83			F GSB S	31 22 05	
	STO C	33 13			I	01	
	EEX	43			9 GSBF d	32 22 14	
	Z	82			9 X=Y	32 51	
040	=	81			GTO 1	22 01	
	h ST I	35 33			Z	02	
	9	09			9 X=Y	32 51	
	9 X>Y	32 81			GTO 2	22 02	
	GTO (i)	22 24		100	9 GSBF d	32 22 14	
	9 GSBF e	32 22 15			RCL E	34 15	
	h RCL	35 34			I	01	
	9 FRAC	32 83			0	00	
	I	01			X	71	
	0	00			F INT	31 83	
050	X	71			4	04	
	F INT	31 83			-	31	
	9 X=Y	32 51			Z	02	
	GTO 4	22 04			5	05	
	9 GSBF C	32 22 15		110	X	71	
	F GSB S	31 22 05			STO + (i)	33 61 24	
	RCL C	34 13			R/S	84	

REGISTERS

0 GO-FREE PARKING	1 MEDITERRAN. LAND, KENTUCKY	2 C. CHEST, CHANCE	3 BALTIC, INDIANA	4 TAX, ILLINOIS	5 PLADING, GYO RR	6 ORIENTAL, ATLANTIC	7 CHANCE, VENTNOR	8 VERMONT, WATER WORKS	9 GUNNETICUT, MARVIN GARDENS
50 JAIL, GO TO JAIL	51 ST. CHARLES, PACIFIC	52 ELECTRIC, N. CAROLINA	53 STATES, COMMUNITY CHEST	54 VIRGINIA, PENNSYLVANIA AVE.	55 PENN. RR, SHORT-LINE	56 ST. JAMES, CHANCE	57 C. CHEST, PARK PLACE	58 TENNESSEE, LUXURY TAX	59 NEW YORK, BOARDWALK
A Player 1's money and position	B player 2's money and position	C used	D player's # who is moving	E Random number	I used				

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Program Listing II

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
	* F LBL 1	31 25 01			RCL (i)	34 24	Income tax, 10%
	F GSB 5	31 22 05		170	I	01	of cash is
	RCL (i)	34 24	player advances to		O	00	deducted.
	F INT	31 83	go. \$200 is added		=	81	
	2	02	to his money.		F INT	31 83	
	0	00			STO - (i)	33 51 24	
	0	00			R/S	84	
120	+	61		* 9 LBL F b	32 25 12		gets the lower
	STO (i)	33 24		9 FRAC	32 83		half of a
	h RTN	35 22		EEX	43		property memory
	* F LBL 2	31 25 02		S	05		
	F GSB 5	31 22 05	player is in jail.	180	X	71	
	RCL (i)	34 24	\$50 is subtracted		h RTN	35 22	
	F INT	31 83	from his money and	* F LBL E	31 25 13		
	4	04	a new board position	STO C	38 13		
	9	09	stored.	I	01		
	.	83		O	00		
130	9	09		=	81		Houses bought.
	-	51		I	01		A house's added
	STO (i)	33 24		+	61		to a specified
	R/S	84		F INT	31 83		piece of property
	* F LBL 3	31 25 03		S	05		and a price is
	F GSB 5	31 22 05	Luxury tax, \$75	O	00		charged depending
	7	07	is deducted from	X	71		on its position.
	5	05	the player's total.	F GSB 5	31 22 05		used for property
	STO - (i)	33 51 24		STO - (i)	33 51 24		1-19
	RCL (i)	34 24		RCL C	34 13		
140	R/S	84		h STI	35 33		
	* F LBL 4	31 25 04		2	02		
	F GSB 5	31 22 05		O	00		
	RCL C	34 13		S X & Y	32 71		
	EEX	43		200	GTO 8	22 08	
	3	03		I	01		
	=	81		STO + (i)	33 61 24		
	F INT	31 83		R/S	84		
	ENTER ↑	41	Pay rent, 10% of	* F LBL 8	31 25 08		if a house is put
	ENTER ↑	41	the purchase price	-	51		on a property
150	RCL C	34 13	is charged. If	h STI	35 33		- 21-39.
	I	01	houses are present,	EEX	43		
	0	00	more is charged	S	05		
	=	81	added to the owners	CHS	42		
	9 FRAC	32 83	total.	210	STO + (i)	33 61 24	
	X	71		R/S	84		
	EEX	43		* 9 LBL F c	32 25 13		
	2	02		F GSB 1	31 22 01		
	X	71		h RV	35 53		
	+	61		-	51		
160	STO + (i)	33 61 24		STO + (i)	33 61 24		
	STO C	33 13		I	01		
	9 GSB F e	32 22 15		h RTN	35 22		
	F GSB 5	31 22 05		* F LBL C	31 25 13		
	RCL C	34 13		RCL A	34 11		
	STO - (i)	33 51 24		h PAUSE	35 72		
	R/S	84		RCL B	34 12		
	* F LBL 6	31 25 06		h PAUSE	35 72		
	F GSB 5	31 22 05		R/S	84		

LABELS

FLAGS

SET STATUS

A	B	C	D	E	F	FLAGS	TRIG	DISP
PLAY		STATUS		HOUSES		ON OFF		
a	b used	c used	d random # and card	e changes players moving	1	0 ☐ ☒	DEG ☒	FIX ☒
0 chance, comin. chest	1 adv. to go	2 go to jail	3 lux. tax	4 pay rent	2 if position is INT or FRAC.	1 ☐ ☒	GRAD ☐	SCI ☐
5 used	6 income tax	7	8 used	9	3	2 ☐ ☒	RAD ☐	ENG ☐
						3 ☐ ☒		n <u>2</u>

MONOPOLY II

1

2

BUY MORTGAGE STATUS BUY BACK MORTGAGE PROPERTY

[illegible]

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	* F LBL A	31 25 11	finds the player's position		STO 2	33 02	checks to see if property has been mortgaged
	F GSB 5	31 22 05			5	05	
	RCL (i)	34 24			EEX	43	
	9 FRAC	32 83		060	4	04	
	EEX	43			9 X>Y	32 81	
	2	02	recalls the board position and stores its cost.		GTO 1	22 01	mortgage indicator is turned off
	X	71			EEX	43	
	2	02			5	05	
	0	00			CHS	42	
010	9 XSY	32 71			h X?Y	35 52	
	F GSB 3	31 22 03			h F?O	35 71 00	cost of property is deducted from player's total and status is displayed
	h RV	35 53			X	71	
	STO C	33 13			STO - (i)	33 51 24	
	h STI	35 33		070	F GSB 5	31 22 05	
	RCL (i)	34 24			RCL 2	34 02	
	h F?O	35 71 00	determines if the property in question has been previously purchased		EEX	43	property fraction part is accessed
	F GSB 2	31 22 02			2	02	
	F INT	31 83			-	81	
	EEX	43			5	05	
020	2	02			0	00	
	-	81	stores the player's # in the property being purchased		0	00	player's money is accessed through the I register
	STO 2	33 02			-	51	
	9 FRAC	32 83		080	F INT	31 83	
	1	01			STO - (i)	33 51 24	
	0	00			F GSB 1	31 22 01	
	X	71	the cost of the property is deducted from the player's total		RCL (i)	34 24	property registers are initialized
	F INT	31 83			R/S	84	
	F X=O	31 61			* F LBL 2	31 25 02	
	GTO 1	22 01			9 FRAC	32 83	
030	EEX	43			EEX	43	
	5	05	Buy back mortgage board position is stored and recalled		5	05	property is checked to see if it is owned if it is the # is displayed, if not the fraction part of the same register is checked.
	CHS	42			X	71	
	RCL D	34 14			h RTN	35 22	
	1	01		090	* F LBL 5	31 25 05	
	0	00			1	01	
	X	71	property registers are initialized		9	09	
	h F?O	35 71 00			RCL D	34 14	
	X	71			+	61	
	STO + (i)	33 61 24			h STI	35 33	
040	F GSB 5	31 22 05			h RV	35 53	
	RCL 2	34 02	property is checked to see if it is owned if it is the # is displayed, if not the fraction part of the same register is checked.		h RTN	35 22	
	F INT	31 83			* F LBL E	31 25 15	
	STO - (i)	33 51 24			1	01	
	F GSB 1	31 22 01		100	9	09	
	R/S	84			h STI	35 33	
	* F LBL D	31 25 14	property is checked to see if it is owned if it is the # is displayed, if not the fraction part of the same register is checked.		* F LBL 9	31 25 09	
	2	02			RCL (i)	34 24	
	0	00			EEX	43	
	9 XSY	32 71			2	02	
050	F GSB 3	31 22 03			-	81	
	h RV	35 53	property is checked to see if it is owned if it is the # is displayed, if not the fraction part of the same register is checked.		9 FRAC	32 83	
	STO C	33 13			1	01	
	h STI	35 33			0	00	
	RCL (i)	34 24		110	X	71	
	h F?O	35 71 00			F INT	31 83	
	F GSB 2	31 22 02			F X=O	31 61	

REGISTERS

0 GO. FREE PARKING	1 MEDIC. KENT.	2 C. CHEST. CHANCE	3 BALTIC. INDIANA	4 TAX. ILLINOIS	5 READING. BNO RR	6 ORIENTAL. ATLANTIC	7 CHANCE VENTNOR	8 WERMONT. W. WORKS	9 COWN. M. GARDENS
50 JAIL. GTO JAIL	51 ST. CHAR. PACIFIC	52 ELECTRIC. N. CAROLINA	53 STATES. C. CHEST	54 VIRGINIA. PENN AVE	55 PENN RR. SHORT LINE	56 ST. JAMES. CHANCE	57 C. CHEST. PARK PLACE	58 TENN. LUX TAX	59 N.Y. BOARDWALK
A player 1's money and position		B player 2's money and position		C used		D player's # who is moving		E Random #	
								I used	

Program Listing II

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
	GTO 9	22 08			EEX	43	
	h PAUSE	35 72		170	4	04	
	h RCI	35 34			h F? 0	35 71 00	
	h PAUSE	35 72			GTO 4	22 04	
	RCL(i)	34 24			g XSY	32 71	
	1	01			R/S	84	
	0	00			STO + (1)	33 61 24	
120	=	81			h RV	35 53	
	g FRAC	32 83			2	02	
	1	01			0	00	
	0	00			0	00	
	X	71		180	÷	81	
	F INT	31 83			F INT	31 83	
	h PAUSE	35 72			F GSB 5	31 22 05	
	*F LBL 8	31 25 08			STO + (1)	33 61 24	
	RCL(i)	34 24			RCL(i)	34 24	
	g FRAC	32 83			R/S	84	
130	EEX	43			*F LBL 4	31 25 04	
	3	03			RCL(i)	34 24	
	X	71			g FRAC	32 83	
	g FRAC	32 83			.	83	
	1	01		190	5	05	
	0	00			g XSY	32 71	
	X	71			R/S	84	
	F INT	31 83			STO + (1)	33 61 24	
	F X = 0	31 51			h RV	35 53	
	GTO 7	22 07			5	05	
140	h PAUSE	35 72			0	00	
	h RCI	35 34			0	00	
	2	02			X	71	
	0	00			F GSB 5	31 22 05	
	+	61		200	F INT	31 83	
	h PAUSE	35 72			STO + (1)	33 61 24	
	RCL(i)	34 24			RCL(i)	34 24	
	EEX	43			R/S	84	
	4	04			*F LBL 1	31 25 01	
	X	71			0	00	
150	g FRAC	32 83			h CF 0	35 61 00	
	1	01			STO 2	33 02	
	0	00			h RTN	35 22	
	X	71			*F LBL 3	31 25 03	
	h PAUSE	35 72			-	51	
	*F LBL 7	31 25 07			h SF 0	35 51 00	
	F DESZ	31 33			1	01	
	GTO 9	22 09			h RTN	35 22	
	0	00			*F LBL C	31 25 13	
	R/S	84			RCL A	34 11	
160	*F LBL B	31 25 12			h PAUSE	35 72	
	2	02			RCL B	34 12	
	0	00			h PAUSE	35 72	
	g XSY	32 71			R/S	84	
	F GSB 3	31 22 03					
	h RV	35 53		220			
	h STI	35 33					
	RCL(i)	34 24					
	5	05					

the position # of the property is displayed along with the # of houses

checks the fraction part of the previous register to see if it is owned, if so, the player # and so on are displayed, if not they are skipped.

decrements the property counter

Mortgage, recalls the property and checks to see if it has already been mortgaged

1/2 of the cost of the property is added to the player's score

checks the fraction part of the mortgage routine.

clears Flag 0 and resets R=

set property register and SF 0

displays status of both players

LABELS					FLAGS		SET STATUS		
A BUY	B MORTGAGE	C STATUS	D BUY BACK MORTGAGE	E PROPERTY	0, lowest rank of property	1	FLAGS	TRIG	DISP
a	b	c	d	e			ON OFF		
0	1 cf 0 and re-set R=	2 used	3 used	4 checks mortgage	2	0	☐ ☒	DEG ☒	FIX ☒
5 used	6	7 decrements property	8 finds prop.	9 finds prop.	3	1	☐ ☒	GRAD ☐	SCI ☐
						2	☐ ☒	RAD ☐	ENG ☐
						3	☐ ☒		n 2

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MONOPOLY RENTS AND MORGAGE

HOUSE COST	\$30	\$30	\$50	\$6	\$60	\$100	morgage
	MEDITERRANEAN AVENUE	BALTIC AVENUE	ORIENTAL AVENUE	VERMONT AVENUE	CONNECTICUT AVENUE	READING R.R.	# of houses
	\$6	\$6	\$10	\$10	\$12	\$20	0
	\$66	\$66	\$110	\$110	\$132		1
	\$126	\$126	\$210	\$210	\$252		2
	\$186	\$186	\$310	\$310	\$372		3
	\$246	\$246	\$410	\$410	\$492		4
\$50	\$306	\$306	\$510	\$510	\$612		5

HOUSE COST	\$70	\$75	\$70	\$80	\$100	\$90	\$90	\$100	morgage
	ST. CHARLES PLACE	ELECTRIC COMPANY	STATES AVENUE	VIRGINIA AVENUE	PENN. R.R.	ST. JAMES PLACE	TENN AVE.	NEW YORK AVENUE	# of houses
	\$14	\$15	\$14	\$16	\$20	\$18	\$18	\$20	0
	\$154		\$154	\$176		\$198	\$198	\$220	1
	\$294		\$294	\$336		\$378	\$378	\$420	2
	\$434		\$434	\$496		\$558	\$558	\$620	3
	\$574		\$574	\$656		\$738	\$738	\$820	4
\$100	\$714		\$714	\$816		\$918	\$918	\$1020	5

HOUSE COST	\$110	\$110	\$120	\$100	\$130	\$130	\$75	\$140	morgage
	KENTUCKY AVENUE	INDIANA AVENUE	ILLINOIS AVENUE	BYO RAILROAD	ATLANTIC AVENUE	VENTNOR AVENUE	WATER WORKS	MARVIN GARDENS	# of houses
	\$22	\$22	\$24	\$20	\$26	\$26	\$15	\$28	0
	\$242	\$242	\$264		\$286	\$286		\$308	1
	\$462	\$462	\$504		\$546	\$546		\$588	2
	\$682	\$682	\$744		\$806	\$806		\$868	3
	\$902	\$902	\$984		\$1066	\$1066		\$1148	4
\$150	\$1122	\$1122	\$1224		\$1326	\$1326		\$1428	5

HOUSE COST	\$150	\$150	\$160	\$100	\$175	\$200	morgage
	PACIFIC AVENUE	N. CAROLINA AVENUE	PENN. AVENUE	SHORT LINE	PARK PLACE	BOARDWALK	# of houses
	\$30	\$30	\$32	\$20	\$35	\$40	0
	\$330	\$330	\$352		\$385	\$440	1
	\$630	\$630	\$672		\$735	\$840	2
	\$930	\$930	\$992		\$1085	\$1240	3
	\$1230	\$1230	\$1312		\$1435	\$1640	4
\$200	\$1530	\$1530	\$1632		\$1785	\$2040	5

