

# Program Description I

Program Title Ping-Pong

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Program Description, Equations, Variables You play your calculator in a game of ping-pong. The user controls the spin, velocity, and placement of the ball. After every 5 points the serve changes hand. Be careful of your shots because the calculator is an expert player.

Operating Limits and Warnings The game has no set limit of points in a game so a certain number of points should be decided as the winning total.

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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00874D

PLAY

[illegible]

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	* f LBL A	31 25 11			* f LBL 3	31 25 03	
	EEX	43			RCL C	34 13	
	3	03			1	01	
	:	81		060	5	05	
	f INT	31 83			g x≤y	32 71	
	STO A	33 11			GTO 4	22 04	
	h LST X	35 82			.	83	
	-	51			4	04	
	1	01			STO D	33 14	
010	00	00			.	83	
	CHS	42			2	02	
	X	71			STO E	33 15	
	INT	31 83			GTO f c	22 31 13	
	STO B	33 12		070	* f LBL 5	31 25 05	
	h LST X	35 82			.	83	
	g FRAC	32 83			7	07	
	EEX	43			STO D	33 14	
	2	02			.	83	
	X	71			3	03	
020	STO C	33 13			STO E	33 15	
	RCL A	34 11			GTO f c	22 31 13	
	1	01			* g LBLf e	32 25 15	
	g x=y	32 51			h π	35 73	
	GTO 1	22 01		080	RCL 0	34 00	
	h R✓	35 53			+	61	
	2	02			g x <sup>2</sup>	32 54	
	g x=y	32 51			g FRAC	32 83	
	GTO 2	22 02			STO 0	33 00	
	RCL B	34 12			h RTN	35 22	
030	1	01			* g LBLf a	32 25 11	
	g x=y	32 51			g GSBf e	32 22 15	
	GTO 3	22 03			2	02	
	.	83			0	00	
	5	05		090	X	71	
	STO D	33 14			1	01	
	.	83			+	61	
	2	02			f INT	31 83	
	STO E	33 15			g GSBf e	32 22 15	
	GTO f C	22 31 13			3	03	
040	* f LBL 1	31 25 01			X	71	
	RCL B	34 12			1	01	
	2	02			+	61	
	g x=y	32 51			f INT	31 83	
	GTO f b	22 31 12		100	EEX	43	
	RCL C	34 13			2	02	
	1	01			X	71	
	0	00			+	61	
	g x>y	32 81			g GSBf e	32 22 15	
	GTO f b	22 31 12			3	03	
050	.	83			X	71	
	7	07			1	01	
	STO D	33 14			+	61	
	4	04			f INT	31 83	
	h 1/x	35 62		110	EEX	43	
	STO E	33 15			3	03	
	GTO f c	22 31 13			X	71	

## REGISTERS

0 random number	1 calc. score	2 human score	3	4	5	6	7	8	9
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A velocity	B spin	C placement	D used	E used	I				

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
	+	61		*	f LBL 7	31 25 07	
	h RTN	35 22		170	h CF 0	35 61 00	
*	f LBL 9	31 25 09			h RTN	35 22	
	1	01		*	g LBLf c	32 25 13	
	STO + 1	33 61 01			g GSBf e	32 22 15	
	STO - 2	33 51 02			RCL D	34 14	
*	f LBL 8	31 25 08			g x≤y	32 71	
120	1	01			GTO f a	22 31 11	
	STO + 2	33 61 02			h R✓	35 53	
	RCL 2	34 02			RCL E	34 15	
	h PAUSE	35 72			g x≤y	32 71	
	RCL 1	34 01		180	GTO 9	22 09	
	h PAUSE	35 72			GTO 8	22 08	
	+	61					
	5	05					
	81						
	g FRAC	32 83					
130	f x=0	31 51					
	GTO 6	22 06					
	h F? 0	35 71 00					
	GTO f a	22 31 11					
	CLX	44		190			
	h RTN	35 22					
*	g LBLf b	32 25 12					
	.	83					
	9	09					
	STO D	33 14					
140	.	83					
	2	02					
	STO E	33 15					
	GTO f c	22 31 13					
*	f LBL 4	31 25 04		200			
	.	83					
	7	07					
	STO D	33 14					
	4	04					
	h 1/x	35 62					
150	STO E						
	GTO f c	22 31 13					
*	f LBL 2	31 25 02					
	RCL B	34 12					
	1	01		210			
	g x=y	32 51					
	GTO 5	22 05					
	.	83					
	7	07					
	STO D	33 14					
160	.	83					
	3	03					
	STO E	33 15					
	GTO f c	22 31 13					
*	f LBL 6	31 25 06		220			
	h F? 0	35 71 00					
	GTO 7	22 07					
	h SF 0	35 51 00					
	GTO f a	22 31 11					

LABELS					FLAGS	SET STATUS		
A	B	C	D	E	0	FLAGS	TRIG	DISP
PLAY					serve changes	ON OFF		
calculator's return	used	fast for return, win		random number	1	0 <input type="checkbox"/> <input checked="" type="checkbox"/>	DEG <input checked="" type="checkbox"/>	FIX <input checked="" type="checkbox"/>
0	1 used	2 used	3 used	4 used	2 used	1 <input type="checkbox"/> <input checked="" type="checkbox"/>	GRAD <input type="checkbox"/>	SCI <input type="checkbox"/>
5	6 used	7 CF 0, change serve	8 calc. scores	9 human scores	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 2