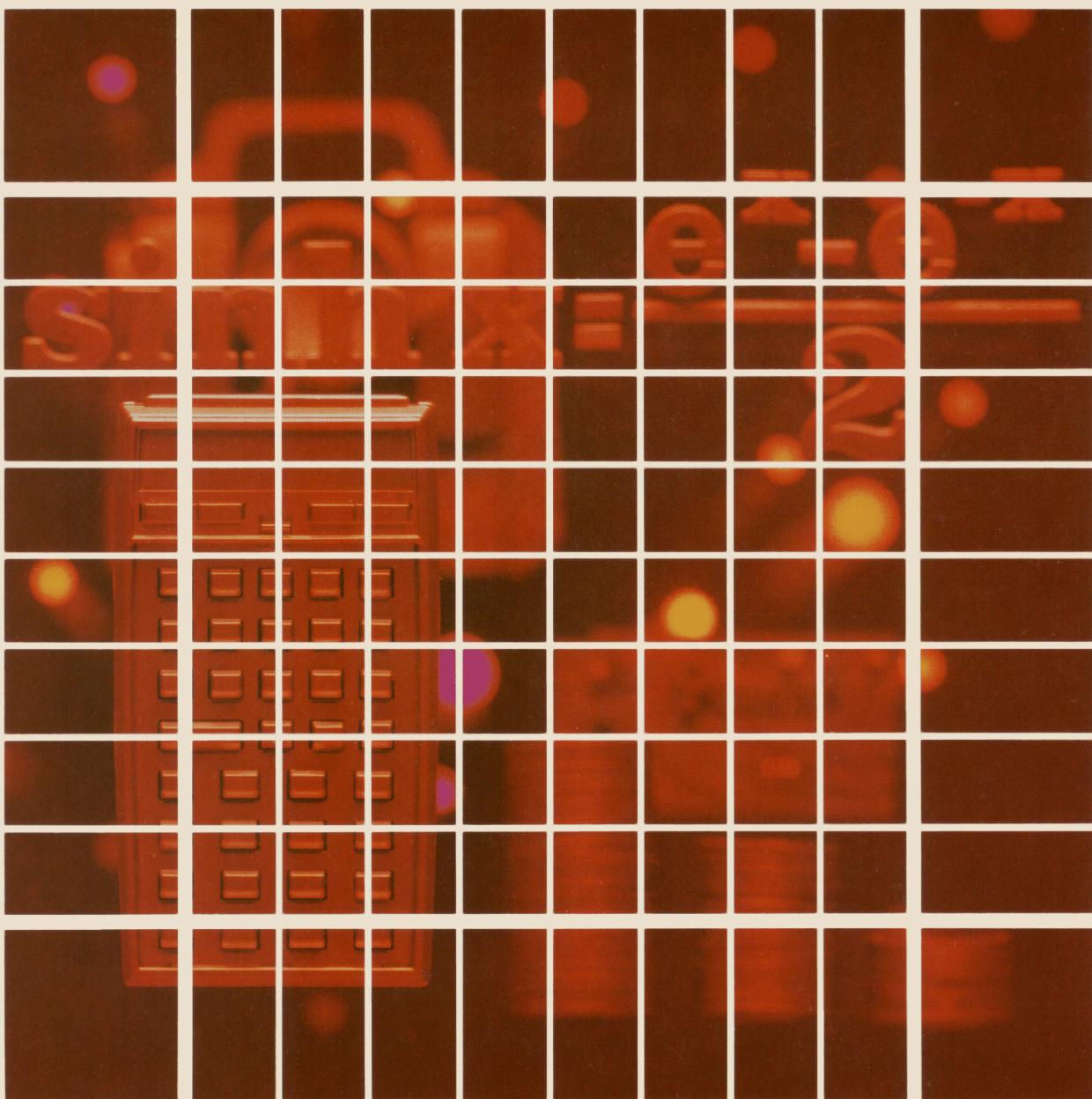


**HEWLETT-PACKARD**

**HP-41C**

**USERS'  
LIBRARY SOLUTIONS  
1979 Taxes**



## **NOTICE**

**The program material contained herein is supplied without representation or warranty of any kind. Hewlett-Packard Company therefore assumes no responsibility and shall have no liability, consequential or otherwise, of any kind arising from the use of this program material or any part thereof.**

## INTRODUCTION

This HP-41C Solutions book was written to help you get the most from your calculator. The programs were chosen to provide useful calculations for many of the common problems encountered.

They will provide you with immediate capabilities in your everyday calculations and you will find them useful as guides to programming techniques for writing your own customized software. The comments on each program listing describe the approach used to reach the solution and help you follow the programmer's logic as you become an expert on your HP calculator.

### KEYING A PROGRAM INTO THE HP-41C

There are several things that you should keep in mind while you are keying in programs from the program listings provided in this book. The output from the HP 82143A printer provides a convenient way of listing and an easily understood method of keying in programs without showing every keystroke. This type of output is what appears in this handbook. Once you understand the procedure for keying programs from the printed listings, you will find this method simple and fast. Here is the procedure:

1. At the end of each program listing is a listing of status information required to properly execute that program. Included is the SIZE allocation required. Before you begin keying in the program, press **XEQ ALPHA SIZE ALPHA** and specify the allocation (three digits; e.g., 10 should be specified as 010).

Also included in the status information is the display format and status of flags important to the program. To ensure proper execution, check to see that the display status of the HP-41C is set as specified and check to see that all applicable flags are set or clear as specified.

2. Set the HP-41C to PRGM mode (press the **PRGM** key) and press **■ GTO • •** to prepare the calculator for the new program.
3. Begin keying in the program. Following is a list of hints that will help you when you key in your programs from the program listings in this handbook.

- a. When you see " (quote marks) around a character or group of characters in the program listing, those characters are ALPHA. To key them in, simply press **ALPHA**, key in the characters, then press **ALPHA** again. So "SAMPLE" would be keyed in as **ALPHA "SAMPLE" ALPHA**.
- b. The diamond in front of each LBL instruction is only a visual aid to help you locate labels in the program listings. When you key in a program, ignore the diamond.
- c. The printer indication of divide sign is /. When you see / in the program listing, press **÷**.
- d. The printer indication of the multiply sign is ×. When you see × in the program listing, press **×**.
- e. The † character in the program listing is an indication of the **APPEND** function. When you see †, press **■ APPEND** in ALPHA mode (press **■** and the K key).
- f. All operations requiring register addresses accept those addresses in these forms:

nn (a two-digit number)

IND nn (INDIRECT: **■**, followed by a two-digit number)

X, Y, Z, T, or L (a STACK address: **□** followed by X, Y, Z, T, or L)

IND X, Y, Z, T or L (INDIRECT stack: **■ □** followed by X, Y, Z, T, or L)

Indirect addresses are specified by pressing **■** and then the indirect address. Stack addresses are specified by pressing **□** followed by X, Y, Z, T, or L. Indirect stack addresses are specified by pressing **■ □** and X, Y, Z, T, or L.

#### Printer Listing

```
01 ♦LBL "SAM  
PLE"  
02 "THIS IS  
A"  
03 †SAMPLE  
"  
04 AVIEW  
05 6  
06 ENTER↑  
07 -2  
08 /  
09 ABS  
10 STO IND  
L  
11 "R3="  
12 ARCL 03  
13 AVIEW  
14 RTN
```

#### Keystrokes

<b>■ LBL</b>	<b>ALPHA</b>	SAMPLE	<b>ALPHA</b>
<b>ALPHA</b>	<b>THIS IS A</b>	<b>ALPHA</b>	
<b>ALPHA</b>	<b>■ APPEND</b>	SAMPLE	
<b>■ AVIEW</b>	<b>ALPHA</b>		
6			
<b>ENTER↑</b>			
2	<b>CHS</b>		
	<b>+</b>		
<b>XEQ</b>	<b>ALPHA</b>	ABS	<b>ALPHA</b>
<b>STO</b>	<b>■</b>	<b>•</b>	L
<b>ALPHA</b>	R3=	<b>■</b>	<b>ARCL</b> 03
<b>■ AVIEW</b>			
<b>ALPHA</b>			
<b>■ RTN</b>			

#### Display

<b>01 LBL<sup>T</sup> SAMPLE</b>
<b>02<sup>T</sup> THIS IS A</b>
<b>03<sup>T</sup> † SAMPLE</b>
<b>04 AVIEW</b>
<b>05 6</b>
<b>06 ENTER ↑</b>
<b>07 -2</b>
<b>08 /</b>
<b>09 ABS</b>
<b>10 STO IND L</b>
<b>11<sup>T</sup> R3=</b>
<b>12 ARCL 03</b>
<b>13 AVIEW</b>
<b>14 RTN</b>

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\* These programs require one memory module.

## 1979 ALTERNATE MINIMUM TAX - JOINT RETURNS

This program computes minimum tax, alternative minimum tax and income tax for married taxpayers filing joint returns (subject to the limitations below), without the need to refer to the tax rate schedules. It can also display the top bracket tax rate (income tax).

### Operating Limits:

0 - \$4,060,000

Does not allow for other taxes or credits other than foreign tax credit.

### Reference:

IRS §§ 55 and 56

**Example:**

Taxable Income	\$ 4,300
Adjusted Itemized Deductions	42,500
Capital Gains Deduction	90,000
Total Tax Preference Items	185,000

Given the above information, calculate the income tax, total taxes, minimum tax, alternate minimum tax, and top bracket rate.

**Keystrokes:**

[XEQ] [ALPHA] SIZE [ALPHA] 013  
[XEQ] [ALPHA] MINTAX [ALPHA]  
4300 [R/S]  
[R/S]  
[R/S]  
42500 [R/S]  
90000 [R/S]  
[R/S]  
185000 [R/S]  
[R/S]  
[R/S]

**Display:**

TI ?  
IT=\$126.00 (income tax)  
L=\$900.00 (Line 3)  
AID ?  
CGD ?  
TOT T=\$20,350.00 (total taxes)  
TTPI ?  
MT=\$12,750.00 (min. tax)  
AMT=\$7,474.00 (alt. min. tax)  
TBR=14.00%

# User Instructions

# Program Listings

01♦LBL "MIN TAX" 02 SF 21 03 "TI ?" 04 PROMPT 05 STO 01 06 STO 09 07 14 08 STO 02 09 0 10 STO 05 11 STO 06 12 3400 13 ST- 01 14 STO 10 15 21 16 STO 04 17 XEQ 08 18 2 19 STO 05 20 XEQ 08 21 43 22 STO 04 23 XEQ 08 24 2 25 ST- 04 26 3 27 STO 05 28 XEQ 08 29 1 30 ST+ 04 31 XEQ 08 32 2 33 ST+ 04 34 4 35 STO 05 36 XEQ 08 37 9 38 ST+ 04 39 XEQ 08 40 5 41 STO 05 42 XEQ 08 43 53 44 ST+ 04 45 6 46 STO 05 47 XEQ 08 48 36 49 ST+ 04 50 XEQ 08	Taxable income  Starting tax rate Clear tax and rate increment registers Deduct zero bracket amount  Tax bracket increment  Tax rate incre- ment  (Repeat changes to rate and bracket incre- ments)	51 114 52 ST+ 04 53 5 54 STO 05 55 XEQ 08 56 18 57 ST- 04 58 XEQ 08 59 530 60 STO 04 61 XEQ 08 62 4 63 STO 05 64 XEQ 08 65 2 66 STO 05 67 XEQ 08 68 0 69 STO 05 70 99 71♦ST* 04 72♦LBL 08 73 RCL 05 74 ST+ 02 75 RCL 04 76 100 77 * 78 ST- 01 79 RCL 02 80 % 81 ST+ 06 82 RCL 01 83 X>0? 84 RTN 85 RCL 02 86 % 87 ST+ 06 88 "IT=\$" 89 ARCL 06 90 AVIEW 91 RCL 06 92 2 93 / 94 1 E4 95 X<=Y? 96 X<>Y 97 STO 12 98 RCL 09 99 RCL 10 100 0 101 STO 09	Calculate tax on bracket  Excess prefer- ence items test
---	--	---	--

# Program Listings

102 "L=\$"		152 AVIEW	Total taxes
103 ARCL X		152 "TTP1 ?"	Total tax prefer-
104 AVIEW		153 PROMPT	ence items
105 "RID ?"		154 RCL 11	
106 PROMPT	Adj. item. ded.	155 RCL 12	
107 STO 10		156 +	
108 "CGD ?"		157 -	
109 PROMPT	Cap. gain ded.	158 X<0?	
110 STO 11		159 0	
111 RCL 09		160 15	
112 +		161 %	
113 RCL 10		162 "MT=\$"	
114 +		163 ARCL X	Minimum tax
115 STO 00		164 AVIEW	
116 0		165 CHS	
117 STO 03		166 RCL 03	
118 STO 07		167 +	
119 1		168 RCL 06	
120 STO 08		169 X<0?	
121 XEQ 09		170 0	
122 2		171 -	
123 STO 08		172 "AMT=\$"	
124 10		173 ARCL X	
125 STO 07		174 AVIEW	Alt. min. tax
126 XEQ 09		175 "TBR="	
127 2		176 ARCL 02	
128 ST* 07		177 "T%"	
129 XEQ 09		178 AVIEW	
130 5		179 .END.	Top bracket rate
131 ST+ 07		80	
132 99			
133 ST* 08			
134+LBL 09	Compute tax on		
135 RCL 08	bracket incre-		
136 2 E4	ment		
137 *			
138 ST- 00			
139 RCL 07			
140 %			
141 ST+ 03			
142 RCL 00			
143 X>0?		90	
144 RTN			
145 RCL 07			
146 %			
147 RCL 03			
148 +			
149 STO 03			
150 "TOT T=\$"			
"			
151 ARCL 03		00	

## **<sup>6</sup> REGISTERS, STATUS, FLAGS, ASSIGNMENTS**

DATA REGISTERS			STATUS						
			SIZE	013	TOT. REG.	58	USER MODE		
			ENG		FIX	2	SCI	ON	OFF
			DEG		RAD		GRAD		
FLAGS				#	INIT S/C	SET INDICATES	CLEAR INDICATES		
00	Alt. Min. T.I.	50							
01	taxable amount								
02	tax rate								
03	total taxes								
04	bracket increment								
05	rate increment	55							
06	income tax								
07	tax rate								
08	bracket increment								
09	taxable income								
10	adj. item. income	60							
11	cap. gains ded.								
12	excess pref. test								
15		65							
20		70							
25		75							
30		80							
35		85							
ASSIGNMENTS									
40		90			FUNCTION	KEY	FUNCTION		
45		95					KEY		

## 1979 MAXIMUM TAX - JOINT RETURNS

(This program requires one memory module.)

This program computes and displays, in order, all of the line items necessary for the completion of Form 4726 for married taxpayers filing joint returns. All computations are made without need to refer to the tax rate schedules. This program will operate when either or both of the following are absent:

Captial Gains Deduction and Tax Preference Items.

Operating Limits:

Maximum tax should only be used when it is less than regular income tax or tax from income averaging.

Program valid for values 0 → \$5,462,400.00.

**Example 1:**

<b>Capital Gains Deduction</b>	<b>\$ 43,672.00</b>
<b>Personal Service Net Income</b>	<b>127,960.00</b>
<b>Adjusted Gross Income</b>	<b>135,615.00</b>
<b>Number of Exemptions</b>	<b>7</b>
<b>Tax Table Income</b>	<b>123,809.00</b>
<b>Tax Preference Items</b>	<b>52,520.00</b>

Given the above information, generate the line answers necessary to complete Form 4726.

**Keystrokes:**

<b>Keystrokes:</b>	<b>Display:</b>
[XEQ] [ALPHA] SIZE [ALPHA] 016	
[XEQ] [ALPHA] MAXTAX [ALPHA]	C.G. DED.?
43672 [R/S]	P.S. NET INC.?
127960 [R/S]	L3=\$127,960.00
[R/S]	AGI ?
135615 [R/S]	L4=\$135,615.00
[R/S]	L5=94.36%
[R/S]	NO EX.?
7 [R/S]	TTI ?
123809 [R/S]	L6=\$116,809.00
[R/S]	L7=\$110,220.97
[R/S]	TAX P.I.?
52520 [R/S]	L8=\$8,848.00
[R/S]	L9=\$101,372.97
[R/S]	L10=\$60,000.00
[R/S]	L11=\$41,372.97
[R/S]	L12=\$20,686.49
[R/S]	L13=\$52,285.76
[R/S]	L14=\$42,808.05
[R/S]	L15=\$9,477.71
[R/S]	L16=\$19,678.00
[R/S]	L17=\$49,842.20

# User Instructions

# Program Listings

01♦LBL "MAX TAX" 02 0 03 STO 15 04 3 05 STO 09 06 SF 21 07 "C.G. DE D. ?" 08 PROMPT 09 STO 14 10 "P.S. NE T INC. ?" 11 PROMPT 12 STO 10 13 XEQ 20 14 "AGI ?" 15 PROMPT 16 XEQ 20 17 / 18 1 E2 19 * 20 RND 21 1 22 ST+ 09 23 "L5=" 24 ARCL Y 25 "T%" 26 AVIEW 27 X<>Y 28 STO 11 29 "NO EX. ?" 30 PROMPT 31 1 E3 32 * 33 STO 12 34 "TTI ?" 35 PROMPT 36 X<>Y 37 - 38 XEQ 20 39 STO 01 40 RCL 11 41 % 42 XEQ 20 43 STO 13 44 "TAX P. I. ?" 45 PROMPT 46 RCL 14	Initialization and data input  Line 3  Data input  Line 5  Data input  Line 6  Line 7  Data input	47 - 48 XEQ 20 49 CHS 50 RCL 13 51 + 52 XEQ 20 53 STO 06 54 6 E4 55 XEQ 20 56 - 57 X>0? 58 GTO 04 59 0 60 XEQ 20 61 STOP 62♦LBL 04 63 XEQ 20 64 2 65 / 66 XEQ 20 67 STO 05 68 1 69 ST+ 15 70 RCL 01 71♦LBL 01 72 STO 00 73 1 74 ST+ 15 75 14 76 STO 02 77 21 78 STO 04 79 0 80 STO 03 81 STO 07 82 3400 83 ST- 00 84 XEQ 09 85 2 86 STO 07 87 XEQ 09 88 43 89 STO 04 90 XEQ 09 91 2 92 ST- 04 93 3 94 STO 07 95 XEQ 09 96 1 97 ST+ 04	Line 8  Line 9  Line 10  -----  Line 11  -----  Line 12  -----  Start of tax rate  ----- Tax brack. increment  ----- Zero tax regis- ter  ----- Deduct zero bracket amt.  ----- Tax rate incre- ment  ----- Repeat changes to rate and bracket incre- ments
---	--	---	--

# Program Listings

98 XEQ 09		149 RCL 00	
99 2		150 X>0?	Back out excess
100 ST+ 04	Repeat changes	151 RTN	
101 4	to	152 RCL 02	
102 STO 07	rate	153 %	
103 XEQ 09	and	154 RCL 03	
104 9	bracket	155 +	
105 ST+ 04	increments	156 XEQ 20	Lines 13 and 14
106 XEQ 09		157 GTO IND	
107 5		15	
108 STO 07		158♦LBL 02	
109 XEQ 09		159 STO 08	Regular tax
110 53		160 RCL 06	
111 ST+ 04		161 GTO 01	
112 6		162♦LBL 03	
113 STO 07		163 CHS	
114 XEQ 09		164 RCL 08	
115 36		165 +	Line 15
116 ST+ 04		166 XEQ 20	
117 XEQ 09		167 19678	Line 16
118 114		168 XEQ 20	
119 ST+ 04		169 +	
120 5		170 RCL 05	
121 STO 07		171 +	Line 17
122 XEQ 09		172 XEQ 20	
123 18		173 STOP	
124 ST- 04		174♦LBL 20	Line output routine
125 XEQ 09		175 RND	
126 530		176 FIX 0	
127 STO 04		177 CF 29	
128 XEQ 09		178 "L"	
129 4		179 ARCL 09	
130 STO 07		180 "I=\$"	
131 XEQ 09		181 FIX 2	
132 2		182 SF 29	
133 STO 07		183 ARCL X	
134 XEQ 09		184 AVIEW	
135 0		185 ISG 09	
136 STO 07		186 RTN	
137 99		187 .END.	
138 ST* 04		90	
139♦LBL 09	-----		
140 RCL 07	Calculate tax on		
141 ST+ 02	bracket		
142 RCL 04	increment		
143 1 E2			
144 *			
145 ST- 00			
146 RCL 02			
147 %			
148 ST+ 03		00	

# <sup>12</sup> REGISTERS, STATUS, FLAGS, ASSIGNMENTS

DATA REGISTERS				STATUS			
				SIZE 016	TOT. REG. 69	USER MODE	
				ENG	FIX 2	SCI	ON OFF
				DEG	RAD	GRAD	
00	taxable amount	50		FLAGS			
01	taxable income			#	INIT S/C	SET INDICATES	CLEAR INDICATES
02	tax rate						
03	tax						
04	bracket inc.						
05	line 12	55					
06	per. serv.T.I.						
07	rate inc.						
08	regular tax						
09	line counter						
10	per. serv. N.I.	60					
11	PSNI/AGI%						
12	exemptions						
13	line 7						
14	cap. gains						
15	pointer	65					
20		70					
25		75					
30		80					
35		85		ASSIGNMENTS			
40		90		FUNCTION	KEY	FUNCTION	KEY
45		95					

## 1979 SINGLE TAXPAYERS INCOME AVERAGING, TAX TABLE A AND SCHEDULE X

(This program requires one memory module.)

This program calculates and displays, in order, the answers needed for completion of Schedule G, Form 1040. Schedule G is used for 5 - year income averaging. This program will also calculate tax for single taxpayers whether income averaging is involved or not. (Tax rate Schedule X or Tax Table A.) Top bracket rate can also be displayed. All calculations are made without need to refer to the tax tables or the tax rate schedules. Calculations stop and "OUT OF RANGE" is displayed if the "averageable income" is \$3,000.00 or less.

This program does not provide for:

- 1) Amounts subject to a penalty under IRC § (M)(5).
- 2) Excess community income.
- 3) Income earned outside U.S. subject to IRC §§ 911 and 931.

Operating Limits:

Single 0 - \$2,731,000.00

Reference:

1979 Schedule G. From 1040, Tax Table A and Tax Rate Schedule X.

**Example 1:**

	INCOME	AVERAGING
1979 Tax Table Income	\$40,000	\$10,000
1978 Tax Table Income	8,000	8,000
1977 Tax Table Income	7,000	7,000
1976 Tax Table Income	6,000	6,000
1975 Tax Table Income	5,000	5,000

Given the above information, generate Form 1040, Schedule G.

**Keystrokes:****Display:**

[XEQ] [ALPHA] SIZE [ALPHA] 016	
[XEQ] [ALPHA] AVSIN [ALPHA]	1975 TI=?
5000 [R/S]	1976 TI=?
6000 [R/S]	1977 TI=?
7000 [R/S]	1978 TI=?
8000 [R/S]	1979 TI=?
40000 [R/S]	L12=\$30,400.00
[R/S]	L13=\$9,120.00
[R/S]	L14=\$30,880.00
[R/S]	L15=\$9,120.00
[R/S]	L16=\$6,176.00
[R/S]	L17=\$15,296.00
[R/S]	L19=\$15,296.00
[R/S]	L20=\$2,693.80
[R/S]	L21=\$2,693.80
[R/S]	L22=\$1,202.20
[R/S]	L23=\$1,491.60
[R/S]	L24=\$5,966.40
[R/S]	L25=\$12,657.00
[R/S]	L26=\$12,657.00
[R/S]	L28=\$8,660.20

Example 2:

1979 Taxable Income = \$20,000.00

Number of Exemptions = 3

What is the top bracket tax rate?

Keystrokes:

[XEQ] [ALPHA] STAX [ALPHA]

3 [R/S]

20000 [R/S]

[R/S]

Display:

NO EX.?

1979 TI=?

TAX=30.%

TAX=\$3,197.50

# User Instructions

				SIZE: 016
STEP	INSTRUCTIONS	INPUT	FUNCTION	DISPLAY
1.	Load the program.			
2.	Initialize.		[XEQ] AVSIN	1975 TI?
3.	Input 1975 taxable income.	1975 TI	[R/S]	1976 TI?
4.	Input 1976 taxable income.	1976 TI	[R/S]	1977 TI?
5.	Input 1977 taxable income.	1977 TI	[R/S]	1978 TI?
6.	Input 1978 taxable income.	1978 TI	[R/S]	1979 TI?
7.	Input 1979 taxable income.	1979 TI	[R/S]	L12=\$( )
			[R/S]	L13=\$( )
			[R/S]	L14=\$( )
			[R/S]	L15=\$( )
			[R/S]	L16=\$( )
			[R/S]	L17=\$( )
			[R/S]	L19=\$( )
			[R/S]	L20=\$( )
			[R/S]	L21=\$( )
			[R/S]	L22=\$( )
			[R/S]	L23=\$( )
			[R/S]	L24=\$( )
			[R/S]	L25=\$( )
			[R/S]	L26=\$( )
			[R/S]	L28=\$( )
	-For Tax Rate Only-			
8.	Initialize.		[XEQ] STAX	NO EX.?
9.	Input number of exemptions.	#	[R/S]	1979 TI?
10.	Input 1979 taxable income.	1979 TI	[R/S]	TAX=( )%
			[R/S]	TAX=\$( )

# Program Listings

01♦LBL "AVS		51 RDN	
IN"	Data	52 XEQ 15	Line 19
02 12	input	53 STO 00	-----
03 STO 15	and	54 CF 01	Adjust flags
04 SF 21	initialization	55 SF 02	
05 1975		56 CF 03	
06 STO 00		57 CF 04	-----
07 FIX 0		58 GTO 01	Line 21
08 XEQ 00		59♦LBL 02	
09 STO 13		60 STO 09	-----
10 XEQ 00		61 XEQ 15	
11 STO 12		62 RCL 05	-----
12 XEQ 00		63♦LBL 01	Start of
13 STO 11		64 STO 00	tax rate
14 XEQ 00		65 14	-----
15 STO 10		66 STO 02	Tax bracket
16 XEQ 00		67 11	increment
17 STO 14		68 STO 04	-----
18 FIX 4		69 0	Clear tax regis-
19 RCL 13	Adjust taxable	70 STO 03	ter
20 4400	incomes to base	71 STO 07	-----
21 +	period incomes	72 2300	Deduct zero
22 RCL 12	and total	73 ST- 00	bracket amount
23 RCL 11		74 XEQ 09	-----
24 RCL 10		75 1	Change bracket
25 +		76 ST- 04	and rate incre-
26 +		77 2	ment
27 +		78 STO 07	-----
28 XEQ 15	Line 12	79 XEQ 09	
29 .3		80 21	Repeat
30 *	Line 13	81 STO 04	bracket
31 XEQ 15		82 XEQ 09	and
32 STO 05		83 1	rate
33 CHS		84 ST- 04	increments
34 RCL 14	Line 14	85 ST- 07	
35 +		86 XEQ 09	
36 XEQ 15		87 3	
37 STO 06	\$3000	88 ST+ 04	
38 3 E3	test	89 2	
39 X?Y?		90 STO 07	
40 E1X		91 XEQ 09	
41 RCL 05	Line 15	92 2	
42 XEQ 15		93 ST- 04	
43 RCL 06		94 3	
44 .2	Line 16	95 STO 07	
45 *		96 XEQ 09	
46 XEQ 15		97 2	
47 +		98 STO 07	
48 XEQ 15	Line 17	99 XEQ 09	
49 1		100 32	
50 ST+ 15		101 STO 04	

# Program Listings

102	2		153	GTO 03	
103	ST* 07	Repeat changes	154	XEQ 15	Lines 20, 22,
104	XEQ 09	to rate	155	FS?C 03	25 and 26-----
105	53	and	156	GTO 04	
106	STO 04	bracket	157	FS?C 02	
107	XEQ 09	increments	158	GTO 02	
108	5		159	RCL 09	
109	STO 07		160	-	
110	XEQ 09		161	CHS	Line 23-----
111	XEQ 09		162	XEQ 15	
112	74		163	4	Line 24-----
113	STO 04		164	*	
114	XEQ 09		165	XEQ 15	
115	138		166	RCL 09	
116	STO 04		167	+	Reset flags
117	6		168	STO 01	
118	STO 07		169	CF 01	
119	XEQ 09		170	RCL 14	
120	265		171	SF 03	
121	STO 04		172	SF 04	
122	8		173	GTO 01	
123	STO 07		174	*LBL "STA	Tax only
124	XEQ 09			X"	initialization
125	5		175	"NO EX.	and
126	STO 07			?"	data
127	XEQ 09		176	PROMPT	input
128	2		177	STO 08	
129	STO 07		178	FIX 0	
130	XEQ 09		179	1979	
131	CLX		180	STO 00	
132	STO 07		181	2 E4	
133	99		182	XEQ 00	Tax table
134	ST* 04		183	SF 01	test
135	*LBL 09	Calculate	184	X>Y?	
136	RCL 07	tax	185	SF 02	
137	ST+ 02	on	186	RCL 08	Compute personal
138	RCL 04	bracket	187	1 E3	exemptions and
139	1 E2	increments	188	*	subtract tax
140	*		189	-	table or
141	ST- 00		190	FS?C 02	schedule
142	RCL 02		191	GTO 01	
143	%		192	50	
144	ST+ 03	Back out excess	193	/	Tax table
145	RCL 00		194	INT	adjustments
146	X>0?		195	STO 06	
147	RTN		196	LASTX	
148	RCL 02		197	FRC	
149	%		198	X<=0?	
150	ST+ 03	Tax only?	199	GTO 07	
151	RCL 03		200	1	
152	FS?C 01		201	ST+ 06	

# Program Listings

202♦LBL 07	Tax table adjustments	51		
203 RCL 06				
204 50				
205 *				
206 25				
207 -				
208 GTO 01				
209♦LBL 04	Line 28	60		
210 1				
211 ST+ 15				
212 RCL 01				
213 XEQ 15				
214 STOP				
215♦LBL 00				
216 CF 29	Data input routine	70		
217 CLA				
218 ARCL 00				
219 "T TI=?"				
220 SF 29				
221 PROMPT				
222 ISG 00				
223♦LBL 00	Line output routine	80		
224 RTN				
225♦LBL 15				
226 FIX 0				
227 CF 29				
228 "L"				
229 ARCL 15				
230 "T=\$"	Top tax bracket rate	90		
231 FIX 2				
232 SF 29				
233 ARCL X				
234 AVIEW				
235 ISG 15				
236♦LBL 00				
237 FS?C 04		00		
238 GTO 15				
239 RTN				
240♦LBL 03				
241 "TAX="				
242 ARCL 02				
243 "T%"				
244 AVIEW				
245 FIX 2				
246 "TAX=\$"				
247 ARCL X				
248 AVIEW				
249 STOP				
250 .END.				
50				

## <sup>20</sup> REGISTERS, STATUS, FLAGS, ASSIGNMENTS

DATA REGISTERS			STATUS					
			SIZE	016	TOT. REG.	81	USER MODE	
			ENG		FIX		ON	OFF
			DEG		RAD		GRAD	
				FLAGS				
			#	INIT S/C	SET INDICATES	CLEAR INDICATES		
00	taxable amount	50			tax only	schedule G		
01	line 28				compute line 21	compute line 23		
02	tax rate				end of program	middle of program		
03	tax				compute line 26			
04	tax bracket inc.				-Tax Only-			
05	line 13	55		01				
06	line 14			02				
07	tax rate inc.			03				
08	# of exemptions			04				
09	line 21							
10	1978 taxable in- come	60						
11	1977 taxable in- come							
12	1976 taxable in- come	65						
13	1975 taxable in- come			02	tax rate sched.	tax table		
14	1979 taxable in- come							
15	line counter	70						
25		75						
30		80						
35		85						
ASSIGNMENTS								
			FUNCTION	KEY	FUNCTION	KEY		
40		90						
45		95						

## 1979 MARRIED INDIVIDUALS INCOME AVERAGING, TAX TABLES B AND C, TAX RATE SCHEDULE Y

(This program requires one memory module.)

This program calculates and displays the answers needed for completion of Schedule G, Form 1040. Schedule G is used for 5 - year income averaging, subject to the limitations shown below, this program calculates for married taxpayers filing joint and separate tax returns. This program can also be used to calculate tax when income averaging is not involved (Tax Tables B and C and Tax Rate Schedule Y). All calculations are made without need to refer to the tables or the tax rate schedules. Calculations stop and "OUT OF RANGE" is displayed if the "Averageable Income" is \$3,000 or less.

This program does not provide for:

- 1) Amounts subject to a penalty under IRC § (M)(5).
- 2) Excess community income.
- 3) Income earned outside U.S. subject to IRC §§ 911 and 931.

Operating Limits:

Joint - 0 to \$5,462,400; separate 0 to \$2,731,200

Reference:

1979 Schedule G, Form 1040; Tax Tables B and C and Tax Rate Schedule Y.

**Example 1:**

	<u>JOINT</u>	<u>JOINT</u>	<u>SEPARATE</u>
1979 Taxable Income	\$40,000	\$10,000	\$20,000
1978 Taxable Income	8,000	8,000	4,000
1977 Taxable Income	7,000	7,000	3,500
1976 Taxable Income	9,200	9,200	4,600
1975 Taxable Income	8,200	8,200	4,100

Given the above information, generate Form 1040 Schedule G. (Joint)

**Keystrokes:**

```
[XEQ] [ALPHA] SIZE [ALPHA] 015
[XEQ] [ALPHA] AVMAR [ALPHA]
J [R/S]
8200 [R/S]
9200 [R/S]
7000 [R/S]
8000 [R/S]
40000 [R/S]
```

**Display:**

```
S/J?
1975 BPI?
1976 BPI?
1977 BPI?
1978 BPI?
1979 TI?
L12=$32,400.00
L13=$9,720.00
L14=$30,280.00
L15=$9,720.00
L16=$6,056.00
L17=$15,776.00
L19=$15,776.00
L20=$2,217.96
L21=$2,217.96
L22=$1,011.60
L23=$1,206.36
L24=$4,825.44
L28=$7,043.40
L25=$10,226.00
L26=$10,226.00
```

Example 2:	<u>JOINT</u>	<u>SEPARATE</u>
1979 Tax Table Income -	\$40,000	\$20,001
Number of Exemptions -	9	3
Top Bracket Rate -	?	?

Calculate the top bracket rate given the above information. (Separate)

Keystrokes:

[XEQ] [ALPHA] MTAX [ALPHA]  
S [R/S]  
3 [R/S]  
20001 [R/S]

Display:

S/J?  
NO EX.?  
1979 TTI?  
TAX=37%  
TAX=\$3,859.37

# User Instructions

STEP	INSTRUCTIONS	INPUT	FUNCTION	DISPLAY	SIZE:015
1.	Load the program.				
2.	Initialize.		[ XEQ ] AVMAR	S/J?	
3.	Input joint (J) or separate (S).	J/S	[ R/S ]	1975 BPI?	
4.	Input 1975 Base Period Income.	BPI	[ R/S ]	1976 BPI?	
5.	Input 1976 Base Period Income.	BPI	[ R/S ]	1977 BPI?	
6.	Input 1977 Base Period Income.	BPI	[ R/S ]	1978 BPI?	
7.	Input 1978 Base Period Income.	BPI	[ R/S ]	1979 TI?	
8.	Input 1979 Taxable Income.	TI	[ R/S ]	L12=\$( )	
			[ R/S ]	L13=\$( )	
			[ R/S ]	L14=\$( )	
			[ R/S ]	L15=\$( )	
			[ R/S ]	L16=\$( )	
			[ R/S ]	L17=\$( )	
			[ R/S ]	L19=\$( )	
			[ R/S ]	L20=\$( )	
			[ R/S ]	L21=\$( )	
			[ R/S ]	L22=\$( )	
			[ R/S ]	L23=\$( )	
			[ R/S ]	L24=\$( )	
			[ R/S ]	L28=\$( )	
			[ R/S ]	L25=\$( )	
			[ R/S ]	L26=\$( )	
	-For Tax Only-				
9.	Initialize.		[ XEQ ] MTAX	S/J?	
10.	Input joint (J) or separate (S).	J/S	[ R/S ]	NO EX.?	
11.	Input number of exemptions.	#	[ R/S ]	1979 TTI?	
12.	Input 1979 Tax Table Income.	TTI	[ R/S ]	TAX=( )%	
			[ R/S ]	TAX=\$( )	

# Program Listings

01♦LBL "AVM AR"		51 STO 00 52 XEQ 08 53 1 54 ST+ 01 55 RDN 56 XEQ 08 57 SF 04 58 CF 03 59 SF 02 60 CF 01 61 GTO 01 62♦LBL 02 63 STO 09 64 RCL 05 65♦LBL 01 66 STO 00 67 13 68 STO 02 69 1 70 STO 07 71 21 72 STO 04 73 0 74 STO 03 75 2 76 FS? 00 77 ST* 00 78 3400 79 ST- 00 80 XEQ 09 81 2 82 STO 07 83 XEQ 09 84 43 85 STO 04 86 XEQ 09 87 2 88 ST- 04 89 3 90 STO 07 91 XEQ 09 92 1 93 ST+ 04 94 XEQ 09 95 2 96 ST+ 04 97 4 98 STO 07 99 XEQ 09 100 9 101 ST+ 04	Line 17 Line 19 Adjust flags ----- Tax rate increment ----- Tax bracket increment ----- Clear tax register ----- Separate return? Zero bracket amount ----- Change rate increment ----- Change bracket increment ----- Continue changing rate and bracket increments
02 SF 21	Initialization		
03 FIX 0	and		
04 XEQ 00	data		
05 CLA	input		
06 1975			
07 STO 01			
08 XEQ 03			
09 STO 13			
10 XEQ 03			
11 STO 12			
12 XEQ 03			
13 STO 11			
14 XEQ 03			
15 STO 10			
16 CF 29			
17 ARCL 01			
18 SF 29			
19 "L TI=?"			
20 12			
21 STO 01			
22 PROMPT			
23 STO 08			
24 RCL 13	Total base		
25 RCL 12	income		
26 RCL 11			
27 RCL 10			
28 +			
29 +			
30 +			
31 XEQ 08	Line 12		
32 .3			
33 *	Line 13		
34 XEQ 08			
35 STO 05			
36 CHS			
37 RCL 08			
38 +	Line 14		
39 XEQ 08			
40 STO 06			
41 3 E3			
42 X>Y?	Error test		
43 ETX			
44 RCL 05	Line 15		
45 XEQ 08			
46 RCL 06			
47 .2			
48 *	Line 16		
49 XEQ 08			
50 +			

# Program Listings

102 XEQ 09	Continue	153 ST/ 03	
103 5	rate	154 RCL 03	
104 STO 07	and	155 FS?C 01	
105 XEQ 09	bracket	156 GTO 04	
106 53	increments	157 FC?C 05	
107 ST+ 04		158 GTO 05	
108 6		159 4	
109 STO 07		160 ST- 01	
110 XEQ 09		161 RDN	
111 36		162 XEQ 08	Line 25
112 ST+ 04		163♦LBL 05	
113 XEQ 09		164 XEQ 08	Line 20, 21, 22,
114 114		165 FS?C 03	26
115 ST+ 04		166 STOP	
116 5		167 FS?C 02	
117 STO 07		168 GTO 02	
118 XEQ 09		169 RCL 09	
119 18		170 -	
120 ST- 04		171 CHS	Line 23
121 XEQ 09		172 XEQ 08	
122 530		173 4	
123 STO 04		174 *	Line 24
124 XEQ 09		175 XEQ 08	
125 4		176 RCL 09	
126 STO 07		177 +	
127 XEQ 09		178 3	
128 2		179 ST+ 01	
129 STO 07		180 RDN	Line 28
130 XEQ 09		181 SF 05	
131 0		182 XEQ 08	
132 STO 07		183 CF 01	
133 99		184 RCL 08	
134 ST* 04		185 SF 03	Continue
135♦LBL 09		186 GTO 01	
136 RCL 07	Calculate	187♦LBL "MTA	
137 ST+ 02	tax on	X"	Top bracket
138 RCL 04	bracket	188 XEQ 00	tax rate
139 1 E2	increment	189 "NO EX.	
140 *		?"	
141 ST- 00		190 PROMPT	
142 RCL 02		191 STO 14	
143 %		192 "1979 TT	
144 ST+ 03		I ?"	
145 RCL 00		193 PROMPT	
146 X>0?		194 1 E4	Tax table
147 RTN		195 SF 01	test
148 RCL 02	Back out	196 4	
149 %	excess	197 FS? 00	
150 ST+ 03		198 SQRT	Separate?
151 2		199 *	
152 FS? 00	Separate return?	200 X<>Y	Compute exemptions

# Program Listings

201 X>Y?		251 CF 29	
202 SF 02		252 "L"	
203 RCL 14		253 ARCL 01	
204 1 E3		254 "F=\$"	
205 *		255 FIX 2	
206 -	Tax table or sched.	256 SF 29	
207 FS?C 02		257 ARCL X	
208 GTO 01		258 AVIEW	
209 50		259 ISG 01	
210 /	Tax table adjustments	260 RTN	Line output routine
211 INT		261 FS?C 04	
212 STO 06		262 GTO 08	
213 LASTX		263 RTN	
214 FRC		264♦LBL 04	Tax rate output routine
215 X<=0?		265 "TAX="	
216 GTO 07		266 FIX 0	
217 1		267 CF 29	
218 ST+ 06		268 ARCL 02	
219♦LBL 07		269 SF 29	
220 RCL 06		270 "F%"	
221 50		271 FIX 2	
222 *		272 AVIEW	Tax amt.
223 25		273 "TAX=\$"	
224 -		274 ARCL X	
225 FIX 0		275 AVIEW	
226 GTO 01		276 STOP	
227♦LBL 03	Data input	277 .END.	
228 CF 29		80	
229 ARCL 01			
230 "F BPI=?"			
"			
231 SF 29			
232 PROMPT			
233 CLA			
234 ISG 01			
235 RTN			
236 RTN			
237♦LBL 00			
238 CF 00			
239 "S"	Separate or joint return?	90	
240 ASTO Y			
241 "F/J ?"			
242 AON			
243 PROMPT			
244 AOFF			
245 ASTO X			
246 X=Y?			
247 SF 00			
248 RTN			
249♦LBL 08	Line output routine	00	
250 FIX 0			

<sup>28</sup> **REGISTERS, STATUS, FLAGS, ASSIGNMENTS**

DATA REGISTERS				STATUS			
00	taxable amount	50		SIZE	015	TOT. REG.	88
01	I/O pointer			ENG		SCI	USER MODE
02	tax rate			DEG		RAD	ON OFF
03	tax					GRAD	
04	tax bracket inc.			FLAGS			
05	averageable amt.	55		INIT # S/C	SET INDICATES	CLEAR INDICATES	
06	not averageable			00	separate	joint	
07	tax rate inc.			01	tax only	sched. G	
08	1979 TI			02	line 20 and 21	line 22	
09	line 21			03	end of prgm.	middle of prgm.	
10	1978 BPI	60		04	repeat output		
11	1977 BPI						
12	1976 BPI						
13	1975 BPI						
14	# of exempt.				-Tax Only-		
15		65		02	tax rate sched.	tax tables	
20		70					
25		75					
30		80					
35		85					
40		90		ASSIGNMENTS			
45		95		FUNCTION	KEY	FUNCTION	KEY

## 1979 HEAD OF HOUSEHOLD INCOME AVERAGING, TAX TABLE D AND TAX SCHEDULE Z

(This program requires one memory module.)

This program calculates and displays, in order, the answers needed for completion of Schedule G, Form 1040. Schedule G is used for 5 - year income averaging. Subject to the limitations given below, this program calculates tax for head of household taxpayers who average their income. This program can also be used to calculate tax when income averaging is not involved (Tax Table D and Tax Rate Schedule Z). All calculations stop and "OUT OF RANGE" is displayed if the "Averageable Income" is \$3,000.00 or less.

This program does not provide for:

- 1) Amounts subject to penalty under IRC § 72 (M)(5).
- 2) Excess community income.
- 3) Income earned outside the U.S. subject to IRC §§ 911 and 931.

### Reference:

1979 Schedule G, Form 1040; Tax Table D and Tax Rate Schedule Z.

<u>Example 1:</u>	<u>INCOME</u>	<u>AVERAGING</u>
1979 Taxable Income	\$40,000	\$10,000
1978 Taxable Income	8,000	8,000
1977 Taxable Income	7,000	7,000
1976 Taxable Income	6,000	6,000
1975 Taxable Income	5,000	5,000

Given the above information, generate the line answers for Form 1040, Schedule G.

Keystrokes:

```
[XEQ] [ALPHA] SIZE [ALPHA] 016
[XEQ] [ALPHA] AVHH [ALPHA]
5000 [R/S]
6000 [R/S]
7000 [R/S]
8000 [R/S]
40000 [R/S]
```

Display:

```
1975 TI=? 
1976 TI=? 
1977 TI=? 
1978 TI=? 
1979 TI=? 
L12=$30,400.00 
L13=$9,120.00 
L14=$30,880.00 
L15=$9,120.00 
L16=$6,176.00 
L17=$15,296.00 
L19=$15,296.00 
L20=$2,552.96 
L21=$2,552.96 
L22=$1,118.40 
L23=$1,434.56 
L24=$5,738.24 
L25=$11,799.00 
L26=$11,799.00 
L28=$8,291.20
```

**Example 2:**

1979 Tax Table Income - \$20,000.00

Number of Exemptions - 8

Given the above information, determine the Top Bracket Rate.

**Keystrokes:**

[XEQ] [ALPHA] HHTAX [ALPHA]  
8 [R/S]  
20000 [R/S]  
[R/S]

**Display:**

NO EX. ?  
1979 TI=?  
TAX=24%  
TAX=\$1,750.00

# User Instructions

				SIZE: 016
STEP	INSTRUCTIONS	INPUT	FUNCTION	DISPLAY
1.	Load the program.			
2.	Initialize.		[XEQ] AVHH	1975 TI?
3.	Input 1975 Taxable Income.	1975 TI	[R/S]	1976 TI?
4.	Input 1976 Taxable Income.	1976 TI	[R/S]	1977 TI?
5.	Input 1977 Taxable Income.	1977 TI	[R/S]	1978 TI?
6.	Input 1978 Taxable Income.	1978 TI	[R/S]	1979 TI?
7.	Input 1979 Taxable Income	1979 TI	[R/S]	L12=\$( )
			[R/S]	L13=\$( )
			[R/S]	L14=\$( )
			[R/S]	L15=\$( )
			[R/S]	L16=\$( )
			[R/S]	L17=\$( )
			[R/S]	L19=\$( )
			[R/S]	L20=\$( )
			[R/S]	L21=\$( )
			[R/S]	L22=\$( )
			[R/S]	L23=\$( )
			[R/S]	L24=\$( )
			[R/S]	L25=\$( )
			[R/S]	L26=\$( )
			[R/S]	L28=\$( )
	-For Tax Only-			
8.	Initialize.		[XEQ] HHTAX	NO EX.?
9.	Input number of exemptions.	#	[R/S]	1979 TI?
10.	Input 1979 taxable income.	1979 TI	[R/S]	TAX=( )%
			[R/S]	TAX=\$( )

# Program Listings

01♦LBL "AVH H"	Initialization and data input	51 ST+ 15 52 RDN 53 XEQ 03 54 STO 00 55 CF 03 56 SF 02 57 CF 01 58 GTO 01 59♦LBL 02 60 STO 09 61 XEQ 03 62 RCL 05 63♦LBL 01 64 STO 00 65 14 66 STO 02	Line 19
02 CLA 03 1975 04 STO 15 05 SF 21 06 FIX 0 07 XEQ 00 08 STO 13 09 XEQ 00 10 STO 12 11 XEQ 00 12 STO 11 13 XEQ 00 14 STO 10 15 XEQ 00	----- 16 12 17 STO 15 18 X<>Y 19 STO 14 20 RCL 13 21 4400 22 + 23 RCL 12 24 RCL 11 25 RCL 10 26 + 27 + 28 +	67 21 68 STO 04 69 0 70 STO 03 71 STO 07 72 2300 73 ST- 00 74 XEQ 09 75 2 76 STO 07 77 XEQ 09 78 1 79 ST+ 04 80 XEQ 09 81 9 82 ST+ 04 83 4 84 STO 07 85 XEQ 09 86 1 87 ST+ 04 88 2 89 STO 07 90 XEQ 09 91 XEQ 09 92 53 93 STO 04 94 5 95 STO 07 96 XEQ 09 97 XEQ 09 98 6 99 STO 07 100 XEQ 09 101 2	Adjust flags Line 21 Initial tax rate Bracket increment Clear tax regis- ter Deduct zero bracket amt. Change rate increm. Change bracket increm. Repeat changes to rate and bracket amounts
29 XEQ 03 30 .3 31 * 32 XEQ 03 33 STO 05 34 CHS 35 RCL 14 36 +	Line 12 Line 13 ----- Line 14 Out of range test	80 XEQ 09 81 9 82 ST+ 04 83 4 84 STO 07 85 XEQ 09 86 1 87 ST+ 04 88 2 89 STO 07 90 XEQ 09 91 XEQ 09 92 53 93 STO 04 94 5 95 STO 07 96 XEQ 09 97 XEQ 09 98 6 99 STO 07 100 XEQ 09	
37 XEQ 03 38 STO 06 39 3 E3 40 X>Y? 41 E↑X 42 RCL 05 43 XEQ 03 44 RCL 06 45 .2 46 * 47 XEQ 03 48 + 49 XEQ 03 50 1	Line 15 Line 16 Line 17	101 2	

# Program Listings

102 ST* 04	Repeat changes to rate and bracket increments	153 GTO 02
103 4		154 RCL 09
104 STO 07		155 -
105 XEQ 09		156 CHS
106 53		157 XEQ 03
107 ST+ 04		158 4
108 8		159 *
109 STO 07		160 XEQ 03
110 XEQ 09		161 RCL 09
111 53		162 +
112 ST+ 04		163 STO 01
113 5		164 CF 01
114 STO 07		165 RCL 14
115 XEQ 09		166 SF 03
116 53		167 SF 04
117 ST+ 04		168 GTO 01
118 4		169♦LBL "HHT
119 STO 07		AX"
120 XEQ 09		170 CF 02
121 2		171 SF 21
122 ST* 04		172 "NO EX.
123 5		?"
124 STO 07		173 PROMPT
125 XEQ 09		174 STO 08
126 99		175 1979
127 ST* 04		176 STO 15
128 2		177 2 E4
129 STO 07		178 FIX 0
130♦LBL 09		179 CLA
131 RCL 07	Calculate tax on bracket increment	180 XEQ 00
132 ST+ 02		181 SF 01
133 RCL 04		182 X>Y?
134 1 E2		183 SF 02
135 *		184 RCL 08
136 ST- 00		185 1 E3
137 RCL 02		186 *
138 %		187 -
139 ST+ 03		188 FS?C 02
140 RCL 00		189 GTO 01
141 X>0?	Back out excess	190 50
142 RTN		191 /
143 RCL 02		192 INT
144 %		193 STO 06
145 ST+ 03		194 LASTX
146 RCL 03		195 FRC
147 FS?C 01	Tax only? Lines 20, 22, 25 and 26	196 X<=0?
148 GTO 06		197 GTO 07
149 XEQ 03		198 1
150 FS?C 03		199 ST+ 06
151 GTO 04		200♦LBL 07
152 FS?C 02		201 RCL 06

# Program Listings

202 50		51	
203 *			
204 25			
205 -			
206 GTO 01			
207 STOP	-----		
208♦LBL 04			
209 1			
210 ST+ 15			
211 RCL 01	Line 28	60	
212 XEQ 03			
213 STOP	-----		
214♦LBL 00			
215 CF 29	Data input		
216 ARCL 15	routine		
217 "F TI=?"			
218 SF 29			
219 PROMPT			
220 CLA			
221 ISG 15		70	
222 RTN			
223 RTN	-----		
224♦LBL 03			
225 FIX 0	Line output		
226 "L"	routine		
227 CF 29			
228 ARCL 15			
229 SF 29			
230 "F=\$"			
231 FIX 2			
232 ARCL X		80	
233 AVIEW			
234 ISG 15			
235 RTN			
236 FS?C 04			
237 GTO 03			
238 RTN			
239♦LBL 06	-----		
240 CF 29	Tax only		
241 "TAX="	output		
242 ARCL 02	routine	90	
243 "F%"			
244 SF 29			
245 FIX 2			
246 AVIEW			
247 "TAX=\$"			
248 ARCL X			
249 AVIEW			
250 STOP			
251 .END.			
50		00	

# <sup>36</sup> REGISTERS, STATUS, FLAGS, ASSIGNMENTS

DATA REGISTERS				STATUS						
				SIZE	16	TOT. REG.	80	USER MODE		
				ENG		FIX	2	SCI	ON	OFF
				DEG		RAD		GRAD		
				FLAGS				CLEAR INDICATES		
				#	INIT	S/C	SET INDICATES	CLEAR INDICATES		
00	taxable amount	50		01			tax only	Sched. G.		
01	line 28			02			line 21	line 23		
02	tax rate			03			end of prgm.	middle of prgm.		
03	tax			04			repeat output			
04	bracket inc.									
05	line 13	55								
06	line 14									
07	rate inc.									
08	# of exempt.									
09	line 21									
10	1978 TI	60								
11	1977 TI									
12	1976 TI									
13	1975 TI						-Tax Only-			
14	1979 TI						tax sched.	tax table		
15	I/O Pointer	65								
20		70								
25		75								
30		80								
35		85								
ASSIGNMENTS										
				FUNCTION		KEY	FUNCTION		KEY	
40		90								
45		95								

## 1979 NEW JOBS CREDIT

This program calculates and displays, in order, the answers needed for completion of Form 5884, Jobs Credit.

**Reference:**

Internal Revenue Code, Sections 51 and 11.

**Example:**

Qualified 1st year wages - \$25,000.00

1979 FUTA wages - \$100,000.00

Qualified 2nd year wages - \$20,000.00

Given the above information, generate the line answers for Form 5884.

**Keystrokes:**

[XEQ] [ALPHA] SIZE [ALPHA] 003

[XEQ] [ALPHA] JOBS [ALPHA]

25000 [R/S]

100000 [R/S]

20000 [R/S]

[R/S]

[R/S]

[R/S]

[R/S]

[R/S]

[R/S]

**Display:**

1 YR. WAGES ?

1979 FUTA ?

2 YR. WAGES ?

L2<c>=\$25,000.00

L3=\$30,000.00

L4=\$25,000.00

L6<c>=\$20,000.00

L7=\$12,500.00

L8=\$5,000.00

L9=\$17,500.00

# User Instructions

# Program Listings

01♦LBL "JOB S" 02 SF 21 03 FIX 2 04 "1 YR. W AGES ?" 05 PROMPT 06 STO 00 07 "1979 FU TA ?" 08 PROMPT 09 STO 01 10 "2 YR. W AGES ?" 11 PROMPT 12 STO 02 13 RCL 00 14 "L2<c>=\$ " 15 ARCL X 16 AVIEW 17 RCL 01 18 30 19 % 20 "L3=\$" 21 ARCL X 22 AVIEW 23 RCL 00 24 X>Y? 25 X<>Y 26 "L4=\$" 27 ARCL X 28 AVIEW 29 2 30 / 31 RCL 02 32 "L6<c>=\$ " 33 ARCL X 34 AVIEW 35 X<>Y 36 "L7=\$" 37 ARCL X 38 AVIEW 39 X<>Y 40 4 41 / 42 "L8=\$" 43 ARCL X 44 AVIEW 45 +	Initialize and data input	46 "L9=\$" 47 ARCL X 48 AVIEW 49 .END.  60  70  80  90  00	Line 9
	Calculate and display line 2(c)		
	Line 3		
	Line 4		
	Line 6(c)		
	Line 7		
	Line 8		

# <sup>40</sup> REGISTERS, STATUS, FLAGS, ASSIGNMENTS

DATA REGISTERS				STATUS			
00	1st Yr. Wages	50		SIZE	003	TOT. REG.	22
01	1979 FUTA			ENG		SCI	ON OFF
02	2nd Yr. Wages			DEG		RAD	GRAD
05		55		FLAGS			
10		60		INIT #	S/C	SET INDICATES	CLEAR INDICATES
15		65					
20		70					
25		75					
30		80					
35		85					
40		90		ASSIGNMENTS			
45		95		FUNCTION	KEY	FUNCTION	KEY

1979 ESTATES AND TRUSTS TAX RATE SCHEDULE,  
STATE DEATH TAXES CREDIT TABLE,  
ESTATE AND GIFT TAX TABLE

(This program requires one memory module.)

This program computes the tax on the taxable income of estates and trusts; it computes federal estate and gift tax on the taxable amount of either. The program generates all of the above without need to refer to any tables or schedules. The top bracket rate is also generated in each case.

Operating Limits:

- 1) Taxable Income of Estates and Trusts 0 - \$2,729,500.00
- 2) State Death Taxes 0 - \$109,040,000.00
- 3) Taxable Amount of Estate or Gift 0 - \$54,500.000.00

References:

1979 Estates and Trusts Tax Rate Schedule, State Death Tax Credit for Estate Tax Table, and Unified Rate Table for Estate and Gift Taxes for U.S. Residents and Citizens.

**Example 1:**

ESTATES AND TRUSTS		STATE DEATH TAX CREDIT		ESTATE AND GIFT TAXES	
TAXABLE INCOME	TAX	ADJUSTED TAXABLE ESTATE	CREDIT	TENTATIVE TAXABLE AMOUNT	TENTATIVE TAX
1) \$1,000 Top Bracket Rate	\$140.00 14%	\$30,000 0%	\$0 0%	\$7,654.32 18%	\$1,377.78
2) \$10,000 Top Bracket Rate	\$2,084.50 28%	\$1,000,000 \$36,560	\$36,560 5.6%	\$76,543.21 26%	\$17,301.23
3) \$30,000 Top Bracket Rate	\$10,757.00 54%	\$5,000,000 \$398,320	\$398,320 11.2%	\$765,432.10 39%	\$254,318.52
4) \$106,100 Top Bracket Rate	\$58,822.00 70%	\$10,040,100 \$1,082,816	\$1,082,816 16%	\$7,654,321 70%	\$4,408,824.70

With an adjusted table estate of \$5,000,000.00, determine the maximum credit for state death taxes. Also calculate the top bracket rate.

**Keystrokes:**

[XEQ] [ALPHA] SIZE [ALPHA] 005  
[XEQ] [ALPHA] CREDIT [ALPHA]  
5000000 [R/S]  
[R/S]

**Display:**

ATE ?  
CREDIT=\$398,320.00  
TAX=11.20%

**Example 2:**

Given a tentative taxable amount of \$765,432.10, determine the tentative tax amount and top bracket rate.

**Keystrokes:**

[XEQ] [ALPHA] GIFT [ALPHA]  
765432.1 [R/S]  
[R/S]

**Display:**

TTA ?  
T. TAX=\$254,318.52  
TAX=39.00%

# User Instructions

# Program Listings

<pre> 01♦LBL "EST ATE" 02 FIX 2 03 SF 21 04 "1979 TI ?" 05 PROMPT 06 STO 00 07 14 08 STO 02 09 0 10 STO 03 11 STO 01 12 21 13 STO 04 14 XEQ 09 15 2 16 STO 01 17 XEQ 09 18 43 19 STO 04 20 XEQ 09 21 2 22 ST- 04 23 3 24 STO 01 25 XEQ 09 26 1 27 ST+ 04 28 XEQ 09 29 2 30 ST+ 04 31 4 32 STO 01 33 XEQ 09 34 9 35 ST+ 04 36 XEQ 09 37 5 38 STO 01 39 XEQ 09 40 2 41 ST* 04 42 6 43 STO 01 44 XEQ 09 45 36 46 ST+ 04 47 XEQ 09 48 114 49 ST+ 04 </pre>	<p>Initialize and data input</p> <p>Start of tax rate</p> <p>Clear tax register</p> <p>Tax bracket increment</p> <p>Tax rate incre- ment</p> <p>Repeat changes to</p> <p>rate and</p> <p>bracket increments</p>	<pre> 50 5 51 STO 01 52 XEQ 09 53 18 54 ST- 04 55 XEQ 09 56 292 57 ST+ 04 58 XEQ 09 59 4 60 STO 01 61 XEQ 09 62 99 63 ST* 04 64 2 65 STO 01 66♦LBL 09 67 RCL 01 68 ST+ 02 69 RCL 04 70 50 71 * 72 ST- 00 73 RCL 02 74 % 75 ST+ 03 76 RCL 00 77 X&gt;0? 78 RTN 79 RCL 02 80 % 81 RCL 03 82 + 83 "TAX=\$" 84 ARCL X 85 AVIEW 86 GTO 14 87♦LBL "CRE DIT" 88 FIX 2 89 CF 00 90 SF 21 91 "ATE ?" 92 PROMPT 93 STO 00 94 0 95 STO 02 96 STO 03 97 STO 01 98 4 99 STO 04 </pre>	<p>Calculate tax on bracket increment</p> <p>Back out excess</p> <p>Display tax amount</p> <p>Initialize and data input</p> <p>Clear tax registers</p> <p>Tax bracket increment</p>
--	---	--	---

# Program Listings

100 XEQ 08	Tax rate increment	151 "CREDIT= \$"	
101 .8		152 FS?C 00	Display results
102 STO 01		153 "T. TAX= \$"	
103 5		154 ARCL X	
104 STO 04	Repeat changes to rate and bracket increments	155 AVIEW	
105 XEQ 08		156 GTO 14	
106 XEQ 08		157♦LBL "GIFT"	Initialize and data input
107 2		158 FIX 2	
108 ST* 04		159 SF 00	
109 XEQ 08		160 SF 21	
110 2		161 "TTA ?"	
111 ST* 04		162 PROMPT	
112 XEQ 08		163 STO 00	
113 XEQ 08		164 18	Starting tax rate
114 XEQ 08		165 STO 02	
115 XEQ 08		166 0	Clear tax register
116 50		167 STO 03	
117 STO 04		168 STO 01	
118 XEQ 08		169 1	Bracket increment
119 XEQ 08		170 STO 04	
120 XEQ 08		171 XEQ 08	
121 XEQ 08		172 2	Rate increment
122 XEQ 08		173 STO 01	
123 XEQ 08		174 XEQ 08	
124 2		175 2	Repeat changes to rate and bracket increments
125 ST* 04		176 STO 04	
126 XEQ 08		177 XEQ 08	
127 XEQ 08		178 XEQ 08	
128 XEQ 08		179 XEQ 08	
129 XEQ 08		180 XEQ 08	
130 XEQ 08		181 5	
131 XEQ 08		182 STO 04	
132 9		183 XEQ 08	
133 ST* 04		184 2	
134♦LBL 08		185 ST* 04	
135 RCL 01	Compute tax on bracket increment	186 XEQ 08	
136 ST+ 02		187 25	
137 RCL 04		188 STO 04	
138 1 E4		189 XEQ 08	
139 *		190 3	
140 ST- 00		191 STO 01	
141 RCL 02		192 XEQ 08	
142 %		193 2	
143 ST+ 03		194 STO 01	
144 RCL 00		195 XEQ 08	
145 X>0?		196 XEQ 08	
146 RTN		197 XEQ 08	
147 RCL 02	Back out excess	198 2	
148 %			
149 RCL 03			
150 +			

# Program Listings

199 ST* 04	Repeat changes	51	
200 XEQ 08			
201 4			
202 STO 01			
203 XEQ 08			
204 XEQ 08			
205 XEQ 08			
206 XEQ 08			
207 XEQ 08			
208 XEQ 08		60	
209 1			
210 STO 01			
211 99			
212 ST* 04			
213 GTO 08			
214♦LBL 14			
215 "TAX="			
216 ARCL 02			
217 "1%"			
218 AVIEW		70	
219 STOP			
220 .END.			
30		80	
40		90	
50		00	

# REGISTERS, STATUS, FLAGS, ASSIGNMENTS<sup>47</sup>

## 1979 CORPORATE TAX RATE SCHEDULE

This program calculates corporate income tax without need to refer to the tax table.

### Operating Limits:

0 - \$2,575,000

### Example:

If taxable income is \$100,100, calculate the income tax and top bracket rate.

#### Keystrokes:

[XEQ] [ALPHA] SIZE [ALPHA] 005  
[XEQ] [ALPHA] CORP [ALPHA]  
100100 [R/S]  
[R/S]

#### Display:

TI ?  
IT=\$26,796.00  
TBR=46.00%

# User Instructions

# Program Listings

01♦LBL "COR		51		
P"				
02 SF 21	Input			
03 "TI ?"				
04 PROMPT				
05 STO 00	Start of tax			
06 17	rate			
07 STO 02				
08 25				
09 STO 01	Bracket incre-			
10 0	ment	60		
11 STO 03	Clear rate incre-			
12 STO 04	ment and tax			
13 XEQ 09	register			
14 3				
15 STO 03	Repeat changes			
16 XEQ 09	to rate and			
17 10	bracket incre-			
18 STO 03	ments			
19 XEQ 09		70		
20 XEQ 09				
21 6				
22 STO 03				
23 99				
24 ST* 01	Compute tax			
25♦LBL 09	on bracket			
26 RCL 03	increment			
27 ST+ 02				
28 RCL 01				
29 1 E3				
30 *		80		
31 ST- 00				
32 RCL 02				
33 %				
34 ST+ 04				
35 RCL 00				
36 X>0?				
37 RTN				
38 RCL 02	Back out excess			
39 %				
40 RCL 04		90		
41 +				
42 "IT=\$"				
43 ARCL X				
44 AVIEW				
45 "TBR= "				
46 ARCL 02				
47 "%"	Top bracket rate			
48 AVIEW				
49 STOP				
50 .END.		00		

# REGISTERS, STATUS, FLAGS, ASSIGNMENTS<sup>51</sup>

DATA REGISTERS				STATUS					
00	taxable income	50		SIZE	005	TOT. REG.	18	USER MODE	
01	bracket increment			ENG		FIX	2	ON OFF	
02	tax rate			DEG		RAD		GRAD	
03	rate increment			FLAGS					
04	tax			#	INIT S/C	SET INDICATES	CLEAR INDICATES		
05		55							
10		60							
15		65							
20		70							
25		75							
30		80							
35		85							
40		90		ASSIGNMENTS					
45		95		FUNCTION	KEY	FUNCTION	KEY		

## **NOTES**

## **NOTES**

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## **Hewlett-Packard Software**

In terms of power and flexibility, the problem-solving potential of the HP-41C programmable calculator is nearly limitless. And in order to see the practical side of this potential, HP has different types of software to help save you time and programming effort. Every one of our software solutions has been carefully selected to effectively increase your problem-solving potential. Chances are, we already have the solutions you're looking for.

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<b>Circuit Analysis</b>	<b>Securities</b>	<b>Navigation</b>
<b>Financial Decisions</b>	<b>Statistics</b>	<b>Real Estate</b>
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<b>Real Estate</b>	<b>Solar Engineering</b>
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<b>High-Level Math</b>	<b>Chemistry</b>
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<b>Antennas</b>	<b>Optometry I (General)</b>
<b>Chemical Engineering</b>	<b>Optometry II (Contact Lens)</b>
<b>Control Systems</b>	<b>Physics</b>
<b>Electrical Engineering</b>	<b>Surveying</b>
<b>Fluid Dynamics and Hydraulics</b>	

\* Some books require additional memory modules to accomodate all programs.

## **1979 TAXES**

1979 ALTERNATIVE MINIMUM TAX — JOINT RETURNS  
1979 MAXIMUM TAX — JOINT RETURNS  
1979 SINGLE TAXPAYERS INCOME AVERAGING, TAX TABLE A AND  
SCHEDULE X  
1979 MARRIED INDIVIDUALS INCOME AVERAGING, TAX TABLES B AND  
C, TAX RATE SCHEDULE Y  
1979 HEAD OF HOUSEHOLD INCOME AVERAGING, TAX TABLE D AND  
TAX RATE SCHEDULE Z  
1979 NEW JOBS CREDIT  
1979 ESTATES AND TRUSTS TAX RATE SCHEDULE, STATE DEATH  
TAXES CREDIT TABLE, ESTATE AND GIFT TAX TABLE  
1979 CORPORATE TAX RATE SCHEDULE

