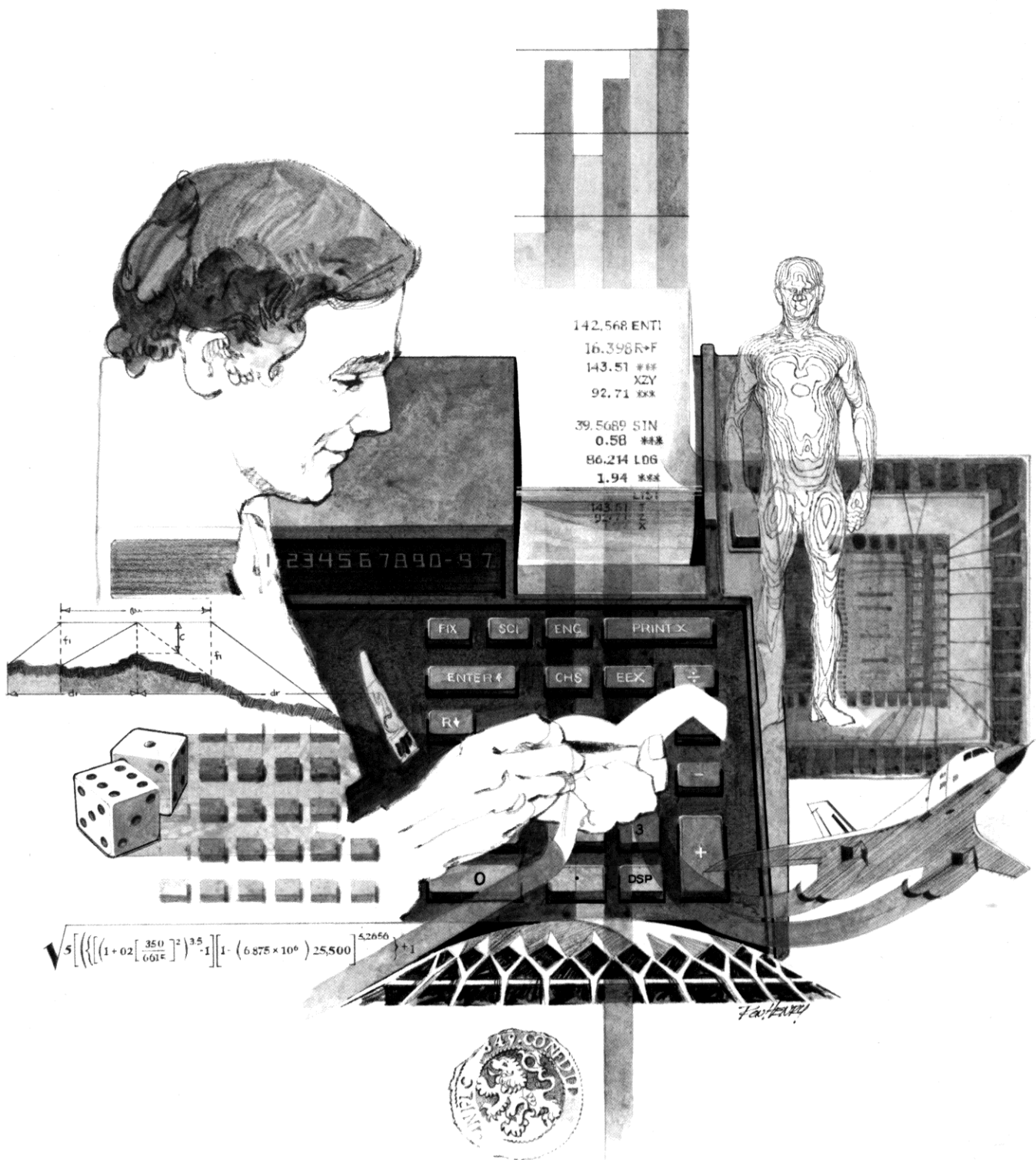


HEWLETT-PACKARD

HP-67/HP-97

Users' Library Solutions

Taxes



INTRODUCTION

In an effort to provide continued value to its customers, Hewlett-Packard is introducing a unique service for the HP fully programmable calculator user. This service is designed to save you time and programming effort. As users are aware, Programmable Calculators are capable of delivering tremendous problem solving potential in terms of power and flexibility, but the real genie in the bottle is program solutions. HP's introduction of the first handheld programmable calculator in 1974 immediately led to a request for program **solutions** — hence the beginning of the HP-65 Users' Library. In order to save HP calculator customers time, users wrote their own programs and sent them to the Library for the benefit of other program users. In a short period of time over 5,000 programs were accepted and made available. This overwhelming response indicated the value of the program library and a Users' Library was then established for the HP-67/97 users.

To extend the value of the Users' Library, Hewlett-Packard is introducing a unique service—a service designed to save you time and money. The Users' Library has collected the best programs in the most popular categories from the HP-67/97 and HP-65 Libraries. These programs have been packaged into a series of low-cost books, resulting in substantial savings for our valued HP-67/97 users.

We feel this new software service will extend the capabilities of our programmable calculators and provide a great benefit to our HP-67/97 users.

A WORD ABOUT PROGRAM USAGE

Each program contained herein is reproduced on the standard forms used by the Users' Library. Magnetic cards are not included. The Program Description I page gives a basic description of the program. The Program Description II page provides a sample problem and the keystrokes used to solve it. The User Instructions page contains a description of the keystrokes used to solve problems in general and the options which are available to the user. The Program Listing I and Program Listing II pages list the program steps necessary to operate the calculator. The comments, listed next to the steps, describe the reason for a step or group of steps. Other pertinent information about data register contents, uses of labels and flags and the initial calculator status mode is also found on these pages. Following the directions in your HP-67 or HP-97 **Owners' Handbook and Programming Guide**, "Loading a Program" (page 134, HP-67; page 119, HP-97), key in the program from the Program Listing I and Program Listing II pages. A number at the top of the Program Listing indicates on which calculator the program was written (HP-67 or HP-97). If the calculator indicated differs from the calculator you will be using, consult Appendix E of your **Owner's Handbook** for the corresponding keycodes and keystrokes converting HP-67 to HP-97 keycodes and vice versa. No program conversion is necessary. The HP-67 and HP-97 are totally compatible, but some differences do occur in the keycodes used to represent some of the functions.

A program loaded into the HP-67 or HP-97 is not permanent—once the calculator is turned off, the program will not be retained. You can, however, permanently save any program by recording it on a blank magnetic card, several of which were provided in the Standard Pac that was shipped with your calculator. Consult your **Owner's Handbook** for full instructions. A few points to remember:

The Set Status section indicates the status of flags, angular mode, and display setting. After keying in your program, review the status section and set the conditions as indicated before using or permanently recording the program.

REMEMBER! To save the program permanently, **clip** the corners of the magnetic card once you have recorded the program. This simple step will protect the magnetic card and keep the program from being inadvertently erased.

As a part of HP's continuing effort to provide value to our customers, we hope you will enjoy our newest concept.

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FEDERAL ESTATE TAX CREDIT FOR STATE TAXES PAID	64
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This program calculates the allowable Estate Tax Credit for state inheritance taxes which have been paid.

ESTATE/GIFT TAX PORTFOLIO VALUATION	69
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This program determines the interpolated price of a security on a date when no quotations are available.

Program Description I

1

Program Title Income Tax Planning - I

Contributor's Name Richard D. Rutter

Address Arthur Young & Co. 780 N. Water St.

City Milwaukee **State** Wi **Zip Code** 53202

Program Description, Equations, Variables This program calculates regular, alternative, and average income taxes for individuals using IRS forms 1040, schedule D, and schedule G. Although the program was originally written prior to the Tax Reduction and Simplification Act of 1977 (which effects 1977 returns) the changes in the law have only had a minor effect on the program results. The tax amount computed for ordinary income differs slightly from that arrived at through the use of Table A through D (adjusted incomes less than \$20,000 (\$40,000 for joint returns)) but the differences are well within the tolerances required for tax planning. For filing purposes, the new tables (A through D) should be used for calculating ordinary income wherever specified by the IRS. If schedule x, y, and z are specified for tax computation, however, the program answers are exact.

The following mnemonics are in the accompanying documentation

OTI = Form 1040 Line 34

- (exemptions x 750)

- 3200 Joint

or

1600 Separate

or

2200 Single

- (.5 x C G)

C G = Capital Gains (Schedule D, line 13)

4 yr TI = Total Taxable income for preceding 4 years (see next page)

Computed tax amounts do not include the income tax credit. For the exact net tax amount, use the program Tax Computation Schedule and the tax on ordinary income generated by this program.

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 I

Program Title

Contributor's Name

Address

City

State

Zip Code

Program Description, Equations, Variables

4 Yr TI - The increase in personal exemption for the current year (1977) has resulted in an increase in the 4 year base period total as implemented in the new income averaging schedule G. The effect is an increase in the averaged tax of approximately .5%. For planning purposes this is not a significant amount. However, if the exact income averaged tax is desired, add the following amounts to the 4 year taxable income.

+ \$2133 Joint

or

+ \$1067 Separate

or

+ \$1467 Single

Operating Limits and Warnings

Tax calculations cannot be performed for values less than \$1,000 (if attempted, error code '9' will flash in the display). All input data must conform with the following limits:

OTI $\geq$ \$1,000

CG $>$ 0

4 yr TI $>$ 0

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

3

Sketch(es)

(See attached flowchart)

Sample Problem(s)

Mr. and Mrs. Smith will file a joint return claiming 2 exemptions for tax year 1977. The following data are applicable.

1040 Line 34	100,000
Capital Gains (CG)	10,000
4 Year TI	160,000

2.00 GSEA	
100000.00 ENT1	line 34
750.00 ENT1	
2.00 X	
1500.00 ***	net exemption
-	
98500.00 ***	
3200.00 -	standard deduction
95300.00 ***	
	capital gains
10000.00 ST0C	
2.00 =	
-	-1/2 C G
90300.00 ***	
ST0B	OTI
160000.00 ST0D	4 yr TI
6SBE	
3.00 T	
42360.00 Z	regular
41860.00 Y	alternative
40529.00 X	averaged

Reference(s)

User Instructions

[illegible]

User Instructions

5

TAX TABLE CARD 1 (or 2)

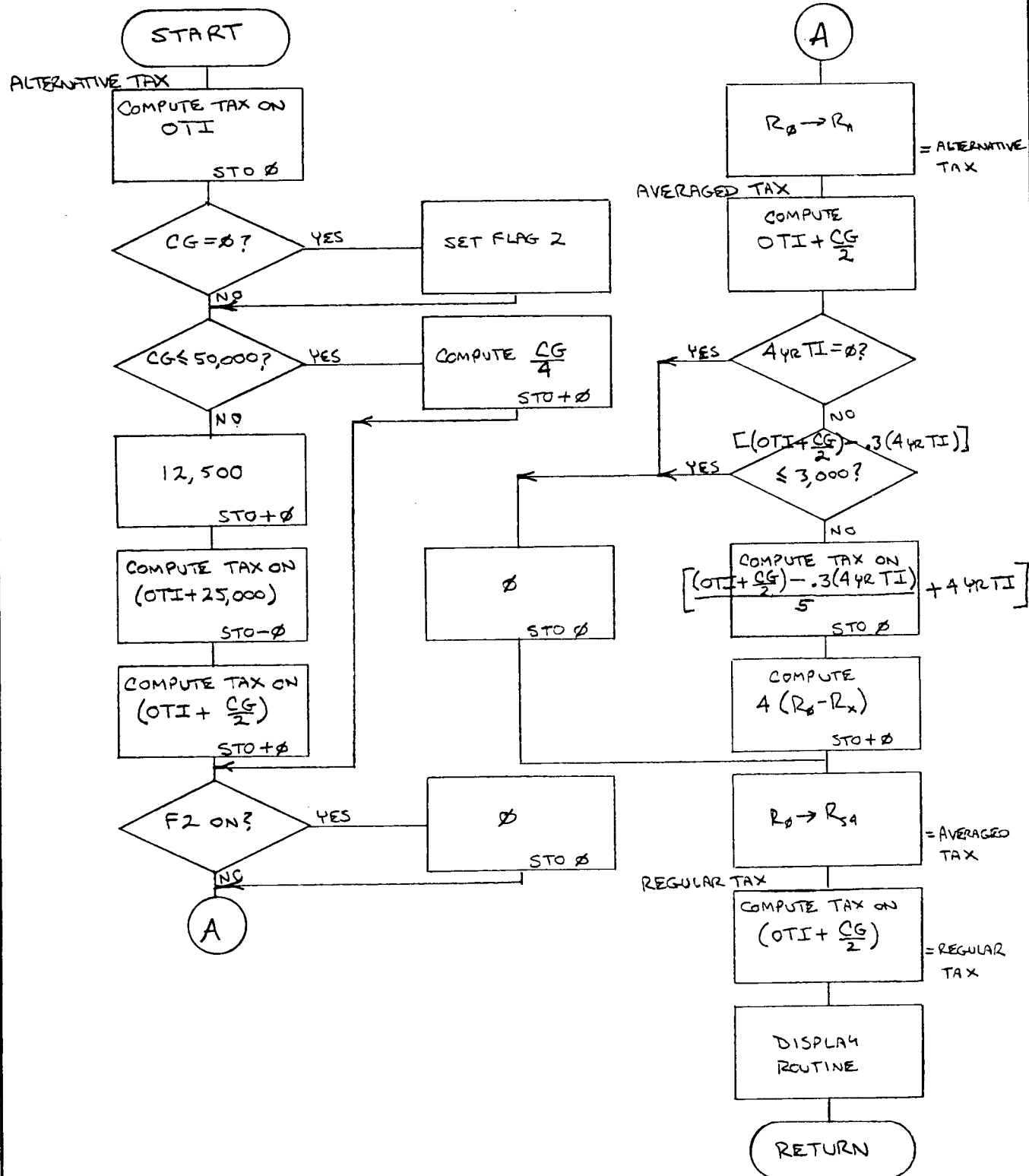
1 Married-Joint \$1,000-39,999 (or \$40,000 +)

Married-Separate \$1,000-19,999 (or \$20,000 +)

Individual \$1,000-19,999 (or \$20,000 +)

2

STEP	INSTRUCTIONS			INPUT DATA/UNITS	KEYS		OUTPUT DATA/UNITS
1.	Record the following data on pairs of data cards for use with Income Tax Planning I and II programs. Record only the Tax Table(s) that you will use.						
	REG	MARRIED- JOINT	MARRIED- SEPARATE	INDIVIDUAL			
		CARD 1					
	R0	1.0401	1.0201	1.0201	STO	0	
	R1	1.0001415	0.	0.	STO	1	
	R2	2.0002916	0.	0.	STO	2	
	R3	3.0004517	1.0001416	1.0001416	STO	3	
	R4	4.0006219	2.0003119	2.0003119	STO	4	
	R5	8.0013822	4.0006922	4.0006921	STO	5	
	R6	12.0022625	6.0011325	6.0011124	STO	6	
	R7	16.0032628	8.0016328	8.0015925	STO	7	
	R8	20.0043832	10.0021932	10.0020927	STO	8	
	R9	24.0056636	12.0028336	12.0026329	STO	9	
					P S		
	R 0	28.0071039	14.0035539	14.0032131	STO	0	
	R 1	32.0086642	16.0043342	16.0038334	STO	1	
	R 2	36.0103445	18.0051745	18.0045136	STO	2	
	R 3	52000.	26000.	38000.	STO	3	
		CARD 2			P S	W/DATA	
	R0	2.0402	2.0202	2.0202	STO	0	
	R1	40.0121448	20.0060748	20.0052338	STO	1	
	R2	44.0140650	22.0070350	22.0059940	STO	2	
	R3	52.0180653	26.0090353	26.0075945	STO	3	
	R4	64.0244255	32.0122155	32.0102950	STO	4	
	R5	76.0310258	38.0155158	38.0132955	STO	5	
	R6	88.0379860	44.0189960	44.0165960	STO	6	
	R7	100.0451862	50.0225962	50.0201962	STO	7	
	R8	120.0575864	60.0287964	60.0263964	STO	8	
	R9	140.0703866	70.0351966	70.0327966	STO	9	
					P S		
	R 0	160.0835868	80.0417968	80.0393968	STO	1	
	R 1	180.0971869	90.0485969	90.0461969	STO	2	
	R 2	200.1109870	100.0554970	100.0530970	STO	3	
	R 3	52000.	26000.	38000.	P S	W/DATA	



97 Program Listing I

7

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBL0	21 00	Tax Calculation Subroutine	057	LSTX	16-63	Exit for initial Tax Table Load
002	EEX	-23		058	ST00	35 00	
003	3	03		059	R4	-31	
004	=	-24		060	INT	16 34	
005	ST0E	35 15		061	X=Y?	16-33	
006	1	01		062	GT09	22 09	
007	X<Y?	16-35		063	R4	-31	
008	GT0E	22 06		064	GT03	22 03	
009	9	09		065	*LBL9	21 09	
010	R/S	51		066	F2?	16 23 02	
011	*LBL6	21 06	Determine which half of tax table is required by comparing argument to 'Table Split' value stored in R1 (Frac).	067	RTN	24	Tax Table Search Routine
012	RCL1	36 46		068	*LBL5	21 05	
013	FRC	16 44		069	RCL1	36 46	
014	EEX	-23		070	FRC	16 44	
015	3	03		071	1	01	
016	X	-35		072	2	02	
017	ENT1	-21		073	+	-55	
018	INT	16 34		074	ST01	35 46	
019	RCL1	36 15		075	*LBL7	21 07	
020	X*Y	-41		076	RCL1	36 15	
021	X>Y?	16-34	Request the other half of the Tax Table ('1' or '2') if necessary, and branch to Tax Table load routine Else, branch to Tax Table Search routine	077	RCL1	36 45	Perform indirect read loop through Tax Table (Descending) until correct entry is found. Then branch to tax calculation routine.
022	GT01	22 01		078	INT	16 34	
023	2	02		079	X<Y?	16-35	
024	GT0E	22 12		080	GT0E	22 08	
025	*LBL1	21 01		081	DSZ1	16 25 46	
026	1	01		082	GT07	22 07	
027	*LBLB	21 12		083	*LBL8	21 08	
028	R4	16-31		084	RCL1	36 45	
029	FRC	16 44		085	FRC	16 44	
030	EEX	-23		086	EEX	-23	
031	1	01	Entry for initial Tax Table load	087	5	05	Tax Calculation Routine
032	X	-35		088	X	-35	
033	INT	16 34		089	ENT1	-21	
034	X=Y?	16-33		090	INT	16 34	
035	GT05	22 05		091	EEX	-23	
036	R4	-31		092	1	01	
037	GT03	22 03		093	X	-35	
038	*LBLA	21 11		094	X*Y	-41	
039	SF2	16 21 02		095	FRC	16 44	
040	*LBL3	21 03		096	RCL1	36 15	
041	RCL0	36 00	Tax Table Load Routine	097	RCL1	36 45	Mainline Calculate Alternative Tax Compute Tax on OTI Store in R0.
042	ABS	16 31		098	INT	16 34	
043	R4	-31		099	-	-45	
044	1	01		100	EEX	-23	
045	3	03		101	3	03	
046	ST01	35 46		102	X	-35	
047	X*Y	-41		103	X	-35	
048	*LBL2	21 02		104	+	-55	
049	MRE	16-62		105	RTN	24	
050	PSE	16 51		106	*LBL1	21 15	
051	F3?	16 23 03	Store 'Table Split' value in R1 (Frac)	107	RCLB	36 12	
052	GT04	22 04		108	GSE0	23 00	
053	GT02	22 02		109	ST00	35 00	
054	*LBL4	21 04		110	5	05	
055	RCL0	36 00		111	EEX	-23	
056	ST01	35 46		112	4	04	

REGISTERS

0 Accum. Tax Amt	1 Tax Table	2	3	4	5	6	7	8	9
S0 Tax Table	S1	S2	S3 Constant 38/26/52000	S4 Ave Tax	S5	S6	S7	S8	S9 Work
A Alt. Tax	B OTI	C C G	D 4 YR TI	E Work	F Loop Control(Int) Table Split(Frac)				

97 Program Listing II

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	RCLC	36 13		169	RCLD	36 14	Compute tax on 4YR TI
114	X=0?	16-43	If CG = 0	170	GSB0	23 00	Leave in R _x
115	SF2	16 21 02	Set Flag 2	171	RCL0	36 00	Compute 4 (R ₀ -R _x)
116	X≤Y?	16-35	If CG < 50000	172	X≠Y	-41	Add to R ₀
117	GTOb	22 16 13	Branch to LBL c	173	-	-45	
118	X≠Y	-41	If C G 50000	174	4	04	
119	4	04	Add 12500 To R ₀	175	x	-35	
120	÷	-24		176	ST+0	35-55 00	
121	ST+0	35-55 00		177	GTOb	22 16 11	Leave 0 in R ₀
122	2	02	Compute Tax on	178	*LBLb	21 16 12	
123	x	-35	(OTI + 25000)	179	0	00	
124	RCLB	36 12	Subtract from R ₀	180	ST00	35 00	
125	+	-55		181	*LBLa	21 16 11	Store
126	GSB0	23 00		182	RCL0	36 00	Averaged Tax
127	ST-0	35-45 00		183	P≠S	16-51	in R ₅₄
128	RCLB	36 12	Compute Tax on	184	ST04	35 04	
129	RCLC	36 13	(OTI + $\frac{CG}{2}$)	185	P≠S	16-51	
130	2	02	Branch to LBL d	186	RCLD	36 14	Restore 4 YR TI
131	÷	-24		187	.	-62	in R ₀
132	+	-55		188	3	03	
133	GSB0	23 00		189	÷	-24	
134	GTOb	22 16 14		190	ST00	35 14	
135	*LBLc	21 16 13	If CG 50000	191	RCLB	36 12	Calculate
136	4	04	Compute $\frac{CG}{4}$	192	RCLC	36 13	Regular Tax
137	÷	-24	Add (Tax on OTI + $\frac{CG}{2}$)	193	2	02	Compute Tax on
138	*LBLd	21 16 14	or ($\frac{CG}{4}$) to R ₀	194	÷	-24	(OTI + $\frac{CG}{2}$)
139	ST+0	35-55 00	If CG=0, Alt. Tax=0	195	+	-55	Leave in R _x
140	RCL0	36 00	Store Alt. Tax in R _A	196	GSB0	23 00	Display
141	F2?	16 23 02	Calculate income	197	3	03	'3.00'
142	0	00	averaged tax	198	X≠Y	-41	'Regular Tax'
143	ST0A	35 11	Calculate OTI + $\frac{CG}{2}$	199	RCLA	36 11	'Alternative Tax'
144	RCLB	36 12		200	P≠S	16-51	'Averaged Tax'
145	RCLC	36 13		201	RCL4	36 04	
146	2	02		202	P≠S	16-51	
147	÷	-24		203	PRST	16-14	
148	+	-55		204	RTN	24	
149	RCLD	36 14	If 4 Yr TI=0	205	R/S	51	
150	X=0?	16-43	Branch to LBL b				
151	GTOb	22 16 12	Compute .3(4Yr TI)				
152	.	-62	Store in R _A				
153	3	03	If (OTI + $\frac{CG}{2}$) -				
154	x	-35	.3(4YR TI)				
155	ST0D	35 14	< 3000				
156	-	-45	Branch to LBL b				
157	3	03	Compute Tax on				
158	EEX	-23	[(OTI + $\frac{CG}{2}$ - .3(4YRTI))				
159	3	03	220				
160	X≠Y	-41	5				
161	X≤Y?	16-35	+ 4 YR TI]				
162	GTOb	22 16 12	Store in R ₀				
163	5	05					
164	÷	-24					
165	RCLD	36 14					
166	+	-55					
167	GSB0	23 00					
168	ST00	35 00					

LABELS					FLAGS	SET STATUS		
A	B	C	D	E		FLAGS	TRIG	DISP
038	027			102	0	ON OFF		
177	174	131	134		1	0 ☐ ☒	DEG ☒	FIX ☒
001	025	045	040	051	2	1 ☐ ☒	GRAD ☐	SCI ☐
064	011	071	079	058	3	2 ☐ ☒	RAD ☐	ENG ☐
						3 ☐ ☒		n <u>2</u>

Program Description I

9

Program Title Federal Income Tax - Single, Tax Table A

Contributor's Name Howard B. Kutner, CPA

Address 370 Lexington Avenue

City New York **State** New York **Zip Code** 10017

Program Description, Equations, Variables

This program is for use in 1977 and later and will find the tax for a single taxpayer corresponding to the various brackets of income in tables published by the Internal Revenue Service. It is for use with incomes of less than \$20,000 and incorporates the zero bracket amount, the deduction for exemptions and the general tax credit. The top tax Rate (incremental rate) may be determined by pressing a single key after determining the tax - (this feature is virtually impossible when using the government tables)

See Users' Library Program Number 00264-D for Formulae and Table of Contents

Operating Limits and Warnings

Taxable Income is limited to \$20,000. However, the program has no limit on the number of exemptions although the Internal Revenue Service requires a detailed calculation when the number of exemptions exceeds that provided in the published tables.

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)

Sample Problem(s)

Find the appropriate tax for each case and the Tax Rate on the Top Bracket

	Exemptions	Income
a)	1	\$4,702.00
b)	2	8,021.00
c)	3	11,588.00
d)	2	17,569.00
e)	1	19,328.00
f)	2	21,465.00

Solution(s)

a)	236.00	17%
b)	672.00	21%
c)	1,238.00	24%
d)	2,994.00	29%
e)	3,778.00	34%
f)	out of limits	

Reference(s)

Internal Revenue Service Form 1040 and Instructions for 1977.

11

[illegible]

97Program Listing I

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLA	21 11		057	-	-45	
002	2	02		058	X>Y?	16-34	
003	0	00		059	GT01	22 01	
004	EEX	-23		060	1	01	
005	3	03		061	6	06	
006	X≠Y	-41		062	ST02	35 02	
007	X>Y?	16-34		063	3	03	
008	N!	16 52		064	4	04	
009	EEX	-23		065	ST04	35 04	
010	2	02		066	1	01	
011	÷	-24		067	6	06	
012	DSP0	-63 00		068	1	01	
013	RND	16 24		069	ST06	35 06	
014	LSTX	16-63		070	GT0e	22 16 15	
015	INT	16 34		071	*LBL0	21 00	
016	ST00	35 00		072	CLX	-51	
017	-	-45		073	6	06	
018	.	-62		074	X>Y?	16-34	
019	2	02		075	GT00	22 00	
020	5	05		076	CLX	-51	
021	-	-45		077	8	08	
022	ABS	16 31		078	ST02	35 02	
023	RCL0	36 00		079	X≠Y?	16-35	
024	+	-55		080	GT01	22 01	
025	7	07		081	CLX	-51	
026	5	05		082	2	02	
027	0	00		083	4	04	
028	R/S	51		084	x	-35	
029	ST08	35 08		085	3	03	
030	%	55		086	3	03	
031	X≠Y	-41		087	*LBLa	21 16 11	
032	R↓	-31		088	LSTX	16-63	
033	-	-45		089	ST09	35 09	
034	.	-62		090	R↓	-31	
035	1	01		091	GT03	22 03	
036	x	-35		092	*LBL1	21 01	
037	2	02		093	2	02	
038	.	-62		094	ST=4	35-24 04	
039	2	02		095	4	04	
040	-	-45		096	1	01	
041	ST01	35 01		097	GT0e	22 16 15	
042	2	02		098	*LBL0	21 00	
043	ST03	35 03		099	CLX	-51	
044	ST05	35 05		100	2	02	
045	CLX	-51		101	ST02	35 02	
046	5	05		102	X>Y?	16-34	
047	0	00		103	GT00	22 00	
048	ST04	35 04		104	1	01	
049	ST02	35 02		105	9	09	
050	X>Y?	16-34		106	ST04	35 04	
051	CLX	-51		107	7	07	
052	1	01		108	GT0e	22 16 15	
053	6	06		109	*LBL0	21 00	
054	X>Y?	16-34		110	1	01	
055	GT00	22 00		111	4	04	
056	8	08		112	ST04	35 04	

REGISTERS

0	1	2	3	4	5	6	7	8	9
Used	i	i ₁	Δi	R ₁	ΔR	T ₁	N	# Exemptions	RATE
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

97Program Listing II

13

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	1	01		169	R↓	-31	
114	ST05	35 05		170	3	03	
115	.	-62		171	5	05	
116	5	05		172	RCL8	36 08	
117	ST03	35 03		173	x	-35	
118	0	00		174	X>Y?	16-34	
119	ST02	35 02		175	X≠Y	-41	
120	*LBL6 21	16 15		176	R↓	-31	
121	RCL1	36 01		177	-	-45	
122	RCL2	36 02		178	DSP0	-63 00	
123	-	-45		179	RND	16 24	
124	RCL3	36 03		180	DSP2	-63 02	
125	÷	-24		181	RTN	24	
126	INT	16 34		182	*LBLB	21 12	
127	ST07	35 07		183	DSP0	-63 00	
128	X²	53		184	RCL9	36 09	
129	LSTX	16-63		185	RTN	24	
130	+	-55		186	R/S	51	
131	2	02					
132	÷	-24					
133	RCL3	36 03					
134	x	-35		190			
135	RCL5	36 05					
136	x	-35					
137	RCL7	36 07					
138	RCL2	36 02					
139	x	-35					
140	RCL5	36 05					
141	x	-35					
142	+	-55					
143	+	-55					
144	RCL4	36 04		200			
145	RCL7	36 07					
146	RCL5	36 05					
147	x	-35					
148	+	-55					
149	ST09	35 09					
150	RCL1	36 01					
151	x	-35					
152	R↑	16-31					
153	*LBL3	21 03					
154	-	-45		210			
155	1	01					
156	0	00					
157	x	-35					
158	X<0?	16-45					
159	CLX	-51					
160	RCL1	36 01					
161	2	02					
162	0	00					
163	x	-35					
164	1	01		220			
165	8	08					
166	0	00					
167	X≠Y?	16-35					
168	X≠Y	-41					

LABELS					FLAGS	SET STATUS		
A	SINGLE	B	RATE	C	D	E	0	
a	CALC.	b		c	d	e	CALC.	1
0	SKIP	1	SKIP	2	3	FINISH	4	USED
5		6		7	8		9	3
					ON OFF		TRIG	
					0	☐ ☒	DEG	☒
					1	☐ ☒	GRAD	☐
					2	☐ ☒	RAD	☐
					3	☐ ☒	DISP	
							FIX	☒
							SCI	☐
							ENG	☐
							n	2

Program Description I

Program Title Federal Income Tax - Joint or Separate, Tax Tables B & C

Contributor's Name Howard B. Kutner, CPA

Address 370 Lexington Avenue

City New York **State** New York **Zip Code** 10017

Program Description, Equations, Variables

This program is for use in 1977 and later and will find the tax for a married taxpayer filing either joint or separate returns corresponding to the various brackets of income in tables published by the Internal Revenue Service. It is for use with incomes of less than \$20,000 (\$40,000 for joint returns) and incorporates the zero bracket amount, the deduction for exemptions and the general tax credit. The top Tax rate (incremental rate) may be determined by pressing a single key after determining the Tax - (this feature is virtually impossible when using the government Tables)

See User Library Program # 00303-D for Formulae and Table of Contents

Operating Limits and Warnings

Taxable Income is limited to 20,000 (40,000 if joint). However, the program has no limit on the number of exemptions although Internal Revenue requires a detailed calculation when the number of exemptions exceeds that provided in the published Tables.

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

15

Sketch(es)

Sample Problem(s) Find the appropriate tax for each case and the Tax Rate on the top bracket.

<u>Joint</u>		<u>Separate</u>	
Exemptions	Income	Exemptions	Income
a) 2	8,148.00	e) 1	3,929.00
b) 6	21,404.00	f) 2	8,782.00
c) 4	28,267.00	g) 3	15,098.00
d) 5	37,528.00	h) 2	18,836.00
		i) 1	22,175.00

Solution(s)	a) 452.00	17%
	b) 2,481.00	25%
	c) 4,864.00	32%
	d) 7,926.00	39%
	e) 203.00	17%
	f) 989.00	22%
	g) 2,477.00	32%
	h) 4,153.00	39%
	i) out of limits	

Reference(s)

Internal Revenue Service Form 1040 and Instructions for 1977.

User Instructions

1  FEDERAL INCOME TAX - MARRIED
TAX TABLES - 1977 AND LATER  2

 JOINT SEPARATE RATE

[illegible]

97 Program Listing I

17

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLB	21 12		057	RTN	24	
002	2	02		058	*LBL0	21 00	
003	0	00		059	CLX	-51	
004	EEX	-23		060	2	02	
005	3	03		061	X>Y?	16-34	
006	X*Y	-41		062	GT00	22 00	
007	X>Y?	16-34		063	ST02	35 02	
008	N!	16 52		064	3	03	
009	SF2	16 21 02		065	ST05	35 05	
010	G5B5	23 05		066	1	01	
011	*LBL4	21 04		067	9	09	
012	1	01		068	ST04	35 04	
013	.	-62		069	7	07	
014	6	06		070	GT0e	22 16 15	
015	-	-45		071	*LBL0	21 00	
016	ST01	35 01		072	1	01	
017	2	02		073	4	04	
018	ST03	35 03		074	ST04	35 04	
019	CLX	-51		075	1	01	
020	1	01		076	ST05	35 05	
021	0	00		077	.	-62	
022	X>Y?	16-34		078	5	05	
023	GT00	22 00		079	ST03	35 03	
024	2	02		080	CLX	-51	
025	+	-55		081	ST02	35 02	
026	X>Y?	16-34		082	*LBLe	21 16 15	
027	GT01	22 01		083	RCL1	36 01	
028	ST02	35 02		084	RCL2	36 02	
029	3	03		085	-	-45	
030	ST05	35 05		086	RCL3	36 03	
031	x	-35		087	÷	-24	
032	ST04	35 04		088	INT	16 34	
033	1	01		089	ST07	35 07	
034	4	04		090	X ²	53	
035	9	09		091	LSTX	16-63	
036	GT0e	22 16 15		092	+	-55	
037	*LBL1	21 01		093	2	02	
038	CLX	-51		094	÷	-24	
039	3	03		095	RCL3	36 03	
040	2	02		096	x	-35	
041	x	-35		097	RCL5	36 05	
042	1	01		098	x	-35	
043	0	00		099	RCL7	36 07	
044	1	01		100	RCL2	36 02	
045	*LBLa	21 16 11		101	x	-35	
046	LSTX	16-63		102	RCL5	36 05	
047	ST09	35 09		103	x	-35	
048	R4	-31		104	+	-55	
049	-	-45		105	+	-55	
050	1	01		106	RCL4	36 04	
051	0	00		107	RCL7	36 07	
052	x	-35		108	RCL5	36 05	
053	X<0?	16-45		109	x	-35	
054	CLX	-51		110	+	-55	
055	F2?	16 23 02		111	ST09	35 09	
056	GT06	22 06		112	RCL1	36 01	

REGISTERS

0	1	2	3	4	5	6	7	8	9
Used	i	i ₁	Δi	R ₁	ΔR	T ₁	N	Exemption	Rate
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

97 Program Listing II

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	X	-35		169	X $\div$ Y	-41	
114	R $\downarrow$	16-31		170	R $\downarrow$	-31	
115	-	-45		171	-	-45	
116	1	01		172	DSP0	-63 00	
117	0	00		173	RND	16 24	
118	x	-35		174	DSP2	-63 02	
119	X<0?	16-45		175	RTN	24	
120	CLX	-51		176	*LBL5	21 05	
121	F2?	16 23 02		177	EEX	-23	
122	GT06	22 06		178	2	02	
123	RTN	24		179	=	-24	
124	*LBL6	21 06		180	DSP0	-63 00	
125	3	03		181	RND	16 24	
126	5	05		182	LSTX	16-63	
127	RCL8	36 08		183	INT	16 34	
128	x	-35		184	ST00	35 00	
129	-	-45		185	-	-45	
130	DSP0	-63 00		186	.	-62	
131	RND	16 24		187	2	02	
132	DSP2	-63 02		188	5	05	
133	RTN	24		189	-	-45	
134	*LBLC	21 13		190	ABS	16 31	
135	DSP0	-63 00		191	RCL0	36 00	
136	RCL9	36 09		192	+	-55	
137	RTN	24		193	7	07	
138	*LBLA	21 11		194	5	05	
139	4	04		195	0	00	
140	0	00		196	R/S	51	
141	EEX	-23		197	ST08	35 08	
142	3	03		198	%	55	
143	X $\div$ Y	-41		199	X $\div$ Y	-41	
144	X>Y?	16-34		200	R $\downarrow$	-31	
145	N!	16 52		201	-	-45	
146	GSB5	23 05		202	.	-62	
147	2	02		203	1	01	
148	=	-24		204	x	-35	
149	GSB4	23 04		205	RTN	24	
150	2	02		206	R/S	51	
151	x	-35					
152	RND	16 24					
153	RCL1	36 01					
154	2	02					
155	0	00					
156	x	-35					
157	INT	16 34					
158	1	01					
159	8	08					
160	0	00					
161	X $\leq$ Y?	16-35					
162	X $\div$ Y	-41					
163	R $\downarrow$	-31					
164	3	03					
165	5	05					
166	RCL8	36 08					
167	x	-35					
168	X>Y?	16-34					

LABELS					FLAGS	SET STATUS		
A Joint	B Separate	C Rate	D	E	0	ON OFF		
a Calculate	b	c	d	e Calculate	1	0 ☐ ☒	DEG ☒	FIX ☒
0 Skip	1 Skip	2 Skip	3	4 Used	2 Separate	1 ☐ ☒	GRAD ☐	SCI ☐
5 Bracket	6 Finish	7	8	9	3	2 ☐ ☒	RAD ☐	ENG ☐
						3 ☐ ☒		n <u>2</u>

Program Description I

19

Program Title Federal Income Tax - Single (Unmarried) Taxpayers (Schedule X)

Contributor's Name Howard B. Kutner, CPA

Address 370 Lexington Avenue - Rm 909

City New York **State** New York **Zip Code** 10017

Program Description, Equations, Variables This program utilizes a mathematical formula to represent the Federal Income Tax Table for single (unmarried) Taxpayers. It enables the user to obtain the tax for a given Taxable Income by pressing a single function key. The Top bracket Tax Rate may then be obtained by simply pressing another key.

$$N = \text{INT} \left(\frac{i - i_1}{\Delta i} \right)$$

$$T = i R - D \quad \text{where:} \quad R = .01 (R_1 + N \Delta R)$$

$$D = 10 \left[\left(\frac{N^2 + N}{2} \right) \Delta R \Delta i + N \Delta R i_1 \right] + T_1$$

TABLE OF CONSTANTS WITHIN VARIOUS BRACKETS OF i ($i = \frac{\text{Taxable}}{1000}$)

range of i	R_1	ΔR	i_1	Δi	T_1	D
0 To 2	14	1	0	.5	0	-
2 To 10	19	3	2	2	70	-
10 To 12	32	-	-	-	-	1010
12 To 22	36	3	12	2	1490	-
22 To 26	50	-	-	-	-	3970
26 To 32	53	-	-	-	-	4750
32 To 38	55	-	-	-	-	5390
38 To 50	58	2	38	6	6530	-
50 To 90	62	2	50	10	8410	-
90 To 100	69	-	-	-	-	13510
over 100	70	-	-	-	-	14510

Operating Limits and Warnings

THIS PROGRAM IS FOR 1977 AND LATER - For incomes less than \$20,000 a different Tax Table may be required.

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)

1977 Tax Rate Schedules

SCHEDULE X—Single Taxpayers Not Qualifying for Rates in Schedule Y or Z

Use this schedule if you checked Box 1 on Form 1040—

Sample Problem(s)

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$2,200..... —0—

Over—	But not over—		of the amount over—
\$2,200	\$2,700	14%	\$2,200
\$2,700	\$3,200	\$70+15%	\$2,700
\$3,200	\$3,700	\$145+16%	\$3,200
\$3,700	\$4,200	\$225+17%	\$3,700
\$4,200	\$6,200	\$310+19%	\$4,200
\$6,200	\$8,200	\$690+21%	\$6,200
\$8,200	\$10,200	\$1,110+24%	\$8,200
\$10,200	\$12,200	\$1,590+25%	\$10,200
\$12,200	\$14,200	\$2,090+27%	\$12,200
\$14,200	\$16,200	\$2,630+29%	\$14,200
\$16,200	\$18,200	\$3,210+31%	\$16,200
\$18,200	\$20,200	\$3,830+34%	\$18,200
\$20,200	\$22,200	\$4,510+36%	\$20,200
\$22,200	\$24,200	\$5,230+38%	\$22,200
\$24,200	\$28,200	\$5,990+40%	\$24,200
\$28,200	\$34,200	\$7,590+45%	\$28,200
\$34,200	\$40,200	\$10,290+50%	\$34,200
\$40,200	\$46,200	\$13,290+55%	\$40,200
\$46,200	\$52,200	\$16,590+60%	\$46,200
\$52,200	\$62,200	\$20,190+62%	\$52,200
\$62,200	\$72,200	\$26,390+64%	\$62,200
\$72,200	\$82,200	\$32,790+66%	\$72,200
\$82,200	\$92,200	\$39,390+68%	\$82,200
\$92,200	\$102,200	\$46,190+69%	\$92,200
\$102,200		\$53,090+70%	\$102,200

Solution(s)

Reference(s) Internal Revenue Service Form 1040 and Instructions for 1977.

This program is for use with Schedule TC, Schedule G, Form 4726 etc. For INCOMES LESS THAN \$20,000 a different Tax Table may be required.

Program Description II

21

Sketch(es)

Sample Problem(s) Find the Tax and Top Bracket Tax Rate for an unmarried Taxpayer with the following Taxable Incomes:

- a) 2,989
- b) 8,062
- c) 10,041
- d) 17,326
- e) 23,092
- f) 29,843
- g) 34,074
- h) 48,721
- i) 74,565
- j) 98,685
- k) 117,632
- l) 1,234

Solution(s)

a)	113.34	15%	g)	10,233.30	45%
b)	1,081.02	21%	h)	18,102.60	60%
c)	1,551.84	24%	i)	34,350.90	66%
d)	3,559.06	31%	j)	50,664.65	69%
e)	5,568.96	38%	k)	63,892.40	70%
f)	8,329.35	45%	l)	0 - no tax	

Reference(s)

User Instructions

FEDERAL INCOME TAX - UNMARRIED 1977 AND LATER	
TAX	RATE

[illegible]

97 Program Listing I

23

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS		
001	*LBLA	21 11	Initiate	057	0	00	$i < 50$		
002	DSP2	-63 02		058	8	00			
003	EEX	-23		059	1	01			
004	3	03		060	GT0e	22 16 15			
005	=	-24		061	*LBL0	21 00			
006	2	02		062	CLX	-51			
007	.	-62		063	1	01			
008	2	02		064	6	06			
009	-	-45		065	X>Y?	16-34			
010	ST01	35 01		066	GT00	22 00			
011	2	02	Store Tentative Constants	067	CLX	-51	$i < 16$		
012	ST03	35 03		068	3	03			
013	ST05	35 05		069	0	00			
014	CLX	-51		070	X>Y?	16-34			
015	5	05		071	GT01	22 01			
016	0	00		072	2	02			
017	ST04	35 04		073	+	-55			
018	ST02	35 02		074	ST02	35 02			
019	X>Y?	16-34		075	X>Y?	16-34			
020	GT00	22 00		076	GT02	22 02			
021	2	02	$i < 50$	077	5	05	$30 < i < 3v$		
022	x	-35		078	ST05	35 05			
023	X>Y?	16-34		079	6	06			
024	GT01	22 01		080	ST03	35 03			
025	CLX	-51		081	5	05			
026	7	07		082	7	07			
027	0	00		083	1	01			
028	x	-35		084	GT0e	22 16 15			
029	1	01		085	*LBL1	21 01			
030	6	06		086	8	08			
031	9	09	$50 < i < 100$	087	-	-45	$16 < i < 30$		
032	1	01		088	ST02	35 02			
033	GT0e	22 16 11		089	X>Y?	16-34			
034	*LBL1	21 01		090	GT01	22 01			
035	CLX	-51		091	4	04			
036	9	09		092	0	00			
037	0	00		093	ST04	35 04			
038	X>Y?	16-34		094	5	05			
039	GT02	22 02		095	ST05	35 05			
040	CLX	-51		096	4	04			
041	6	06	$50 < i < 90$	097	ST03	35 03	$16 < i < 2v$		
042	9	09		098	2	02			
043	x	-35		099	8	08			
044	1	01		100	1	01			
045	5	05		101	ST06	35 06			
046	9	09		102	GT0e	22 16 15			
047	1	01		103	*LBL1	21 01			
048	GT0e	22 16 11		104	1	01			
049	*LBL2	21 02		105	6	06			
050	6	06		106	ST02	35 02			
051	2	02	$90 < i < 100$	107	3	03	$22 < i < 30$		
052	ST04	35 04		108	4	04			
053	1	01		109	ST04	35 04			
054	0	00		110	1	01			
055	ST03	35 03		111	6	06			
056	1	01		112	1	01			
REGISTERS									
0	1 i	2 i_1	3 Δi	4 R_1	5 ΔR	6 T_1	7 N	8	9 $RATE$
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

97 Program Listing II

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	ST06	35 06	} Calculate for 30 < i < 3v	165	ST04	35 04	} Store Constants for 0 < i < v
114	GT0e	22 16 15		166	1	01	
115	*LBL2	21 02		167	ST05	35 05	
116	CLX	-51		168	.	-62	
117	4	04		169	5	05	
118	5	05		170	ST03	35 03	
119	x	-35		171	0	00	
120	4	04		172	ST02	35 02	
121	1	01		173	*LBLe	21 16 15	
122	1	01		174	RCL1	36 01	
123	GT0a	22 16 11		175	RCL2	36 02	
124	*LBL0	21 00		176	-	-45	
125	CLX	-51		177	RCL3	36 03	
126	6	06		178	÷	-24	
127	X>Y?	16-34	179	INT	16 34		
128	GT00	22 00	180	ST07	35 07	<u>CALCULATE</u> $N = \text{INT} \left(\frac{i - i_1}{\Delta i} \right)$ $D = \left[\left(\frac{N + N}{2} \right) \Delta R \Delta i \right. \\ \left. + N \Delta R i_1 + T_1 \right]$ $R = R_1 + N \Delta R$ $TAX = iR - D$	
129	CLX	-51	181	X²	53		
130	8	08	182	LSTX	16-63		
131	ST02	35 02	183	+	-55		
132	X≤Y?	16-35	184	2	02		
133	GT01	22 01	185	÷	-24		
134	CLX	-51	186	RCL3	36 03		
135	2	02	187	x	-35		
136	4	04	188	RCL5	36 05		
137	x	-35	189	x	-35		
138	3	03	190	RCL7	36 07		
139	3	03	191	RCL2	36 02		
140	*LBLa	21 16 11	192	x	-35		
141	LSTX	16-63	193	RCL5	36 05		
142	ST09	35 09	194	x	-35		
143	R+	-31	195	+	-55		
144	GT03	22 03	196	+	-55		
			197	RCL4	36 04		
			198	RCL7	36 07		
			199	RCL5	36 05		
			200	x	-35		
			201	+	-55		
			202	ST09	35 09		
			203	RCL1	36 01		
			204	x	-35		
			205	R1	16-31		
			206	*LBL3	21 03		
			207	-	-45		
			208	1	01		
			209	0	00		
			210	x	-35		
			211	X<0?	16-45		
			212	CLX	-51		
			213	RTN	24		
			214	*LBLB	21 12		
			215	DSF0	-63 00		
			216	RCL9	36 09		
			217	RTN	24		
			218	R/S	51		
145	*LBL1	21 01	} Store Constants for 8 < i < 16				} Recall and Display Rate
146	2	02					
147	ST÷4	35-24 04					
148	4	04					
149	1	01					
150	GT0e	22 16 15					
151	*LBL0	21 00					
152	CLX	-51					
153	2	02					
154	ST02	35 02					
155	X>Y?	16-34					
156	GT00	22 00					
157	1	01					
158	9	09					
159	ST04	35 04					
160	7	07					
161	GT0e	22 16 15					
162	*LBL0	21 00					
163	1	01					
164	4	04					

LABELS					FLAGS	SET STATUS			
A	B	C	D	E	0	FLAGS		TRIG	DISP
TAX	RATE					ON	OFF		
a Final Routine	b	c	d	e Calculate	1	0	☒	DEG ☒	FIX ☒
0 Skip	1 Skip	2 Skip	3	4	2	1	☐	GRAD ☐	SCI ☐
					3	2	☒	RAD ☐	ENG ☐
						3	☒		n 2

Program Description I

25

Program Title Federal Income Tax - Joint or Separate (Schedule Y)

Contributor's Name Howard B. Kutner, CPA

Address 370 Lexington Avenue - Rm 909

City New York State New York Zip Code 10017

Program Description, Equations, Variables

This program utilizes a mathematical formula to represent the Federal Tax Table for married Taxpayers filing either jointly or separately. It enables the user to obtain the Tax for a given taxable Income by pressing single function key. The Top bracket Tax Rate may then be obtained by pressing another key.

$$N = \text{INT} \left(\frac{i - i_1}{\Delta i} \right)$$

$$T_{\text{Sep}} = iR - D \quad \text{where:} \quad R = .01 (R_1 + N\Delta R)$$

$$D = 10 \left[\left(\frac{N^2 + N}{2} \right) \Delta R \Delta i + N \Delta R i_1 \right] + T_1$$

$$T_{\text{Married}} = 2x[T_{\text{Sep}}(i/2)]$$

TABLE OF CONSTANTS WITHIN VARIOUS BRACKETS OF i ($i = \frac{\text{Taxable}}{1000}$)

	range of i	R_1	ΔR	i_1	Δi	T_1	D
	0 To 2	14	1	0	.5	0	-
	2 To 10	19	3	2	2	70	-
	10 To 12	32	-	-	-	-	1010
	12 To 22	36	3	12	2	1490	-
	22 To 26	50	-	-	-	-	3970
	26 To 32	53	-	-	-	-	4750
Operating Limits and Warnings	32 To 38	55	-	-	-	-	5390
	38 To 50	58	2	38	6	6530	-
	50 To 90	62	2	50	10	8410	-
	90 To 100	69	-	-	-	-	13510
	over 100	70	-	-	-	-	14510

THIS PROGRAM IS FOR 1977 AND LATER - For incomes less than \$20,000 (40,000 if joint) a different Tax Table may be required.

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)

1977 Tax Rate Schedules

Sample Problem(s)

Married Filing Joint Returns and Qualifying Widows and Widowers

Use this schedule if you checked Box 2 or Box 5 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$3,200..... —0—

Over—	But not over—		of the amount over—
\$3,200	\$4,200	14%	\$3,200
\$4,200	\$5,200	\$140+15%	\$4,200
\$5,200	\$6,200	\$290+16%	\$5,200
\$6,200	\$7,200	\$450+17%	\$6,200
\$7,200	\$11,200	\$620+19%	\$7,200
\$11,200	\$15,200	\$1,380+22%	\$11,200
\$15,200	\$19,200	\$2,260+25%	\$15,200
\$19,200	\$23,200	\$3,260+28%	\$19,200
\$23,200	\$27,200	\$4,380+32%	\$23,200
\$27,200	\$31,200	\$5,660+36%	\$27,200
\$31,200	\$35,200	\$7,100+39%	\$31,200
\$35,200	\$39,200	\$8,660+42%	\$35,200
\$39,200	\$43,200	\$10,340+45%	\$39,200
\$43,200	\$47,200	\$12,140+48%	\$43,200
\$47,200	\$55,200	\$14,060+50%	\$47,200
\$55,200	\$67,200	\$18,060+53%	\$55,200
\$67,200	\$79,200	\$24,420+55%	\$67,200
\$79,200	\$91,200	\$31,020+58%	\$79,200
\$91,200	\$103,200	\$37,980+60%	\$91,200
\$103,200	\$123,200	\$45,180+62%	\$103,200
\$123,200	\$143,200	\$57,580+64%	\$123,200
\$143,200	\$163,200	\$70,380+66%	\$143,200
\$163,200	\$183,200	\$83,580+68%	\$163,200
\$183,200	\$203,200	\$97,180+69%	\$183,200
\$203,200		\$110,980+70%	\$203,200

Solution(s)

Married Filing Separate Returns

Use this schedule if you checked Box 3 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$1,600..... —0—

Over—	But not over—		of the amount over—
\$1,600	\$2,100	14%	\$1,600
\$2,100	\$2,600	\$70+15%	\$2,100
\$2,600	\$3,100	\$145+16%	\$2,600
\$3,100	\$3,600	\$225+17%	\$3,100
\$3,600	\$5,600	\$310+19%	\$3,600
\$5,600	\$7,600	\$690+22%	\$5,600
\$7,600	\$9,600	\$1,130+25%	\$7,600
\$9,600	\$11,600	\$1,630+28%	\$9,600
\$11,600	\$13,600	\$2,190+32%	\$11,600
\$13,600	\$15,600	\$2,830+36%	\$13,600
\$15,600	\$17,600	\$3,550+39%	\$15,600
\$17,600	\$19,600	\$4,330+42%	\$17,600
\$19,600	\$21,600	\$5,170+45%	\$19,600
\$21,600	\$23,600	\$6,070+48%	\$21,600
\$23,600	\$27,600	\$7,030+50%	\$23,600
\$27,600	\$33,600	\$9,030+53%	\$27,600
\$33,600	\$39,600	\$12,210+55%	\$33,600
\$39,600	\$45,600	\$15,510+58%	\$39,600
\$45,600	\$51,600	\$18,990+60%	\$45,600
\$51,600	\$61,600	\$22,590+62%	\$51,600
\$61,600	\$71,600	\$28,790+64%	\$61,600
\$71,600	\$81,600	\$35,190+66%	\$71,600
\$81,600	\$91,600	\$41,790+68%	\$81,600
\$91,600	\$101,600	\$48,590+69%	\$91,600
\$101,600		\$55,490+70%	\$101,600

Reference(s) Internal Revenue Service Form 1040 and Instructions for 1977.

This program is for use with Schedule TC, Schedule D, Schedule G, Form 4726 etc.

FOR INCOMES LESS THAN \$20,000 (40,000 Joint) a different Tax Table may be required.

Program Description II

27

Sketch(es)

Sample Problem(s) Find the Tax for married Taxpayers filing jointly with the following Taxable incomes. Also find the Top Tax Rate in each case.

- a) 6,921
- b) 21,093
- c) 25,661
- d) 42,946
- e) 50,495
- f) 62,616
- g) 77,029
- h) 90,741
- i) 168,493
- j) 196,675
- k) 218,067
- l) 1,234.00

Solution(s)

- | | | | | | |
|----|-----------|-----|----|-------------|-----|
| a) | 572.57 | 17% | g) | 29,825.95 | 55% |
| b) | 3,790.04 | 28% | h) | 37,713.78 | 58% |
| c) | 5,167.52 | 32% | i) | 87,179.24 | 68% |
| d) | 12,025.70 | 45% | j) | 106,477.75 | 69% |
| e) | 15,707.50 | 50% | k) | 121,386.90 | 70% |
| f) | 21,990.48 | 53% | l) | 0.00 no tax | |

Reference(s)

FEDERAL INCOME TAX - 1977 AND LATER		
1	MARRIED TRUST/ESTATE TOP FILING MARRIED FILING BRACKET JOINTLY SEPARATELY RATE	2

[illegible]

97 Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLB	21 12	Initiate	057	4	04	$i < 50$
002	DSP2	-63 02		058	1	01	
003	EEEX	-23		059	GT0e	22 16 15	
004	3	03		060	*LBL0	21 00	
005	=	-24		061	CLX	-51	
006	1	01		062	2	02	
007	.	-62		063	2	02	
008	6	06		064	X>Y?	16-34	
009	-	-45		065	GT00	22 00	
010	ST01	35 01		066	CLX	-51	
011	2	02	Store i and Tentative constants	067	3	03	$i < 22$
012	ST03	35 03		068	2	02	
013	ST05	35 05		069	X>Y?	16-34	
014	CLX	-51		070	GT01	22 01	
015	5	05		071	6	06	
016	0	00		072	+	-55	
017	ST04	35 04		073	ST02	35 02	
018	ST02	35 02		074	X>Y?	16-34	
019	X>Y?	16-34		075	GT02	22 02	
020	GT00	22 00		076	5	05	
021	2	02	$i < 50$	077	6	06	$32 < i < 38$
022	X	-35		078	ST04	35 04	
023	X>Y?	16-34		079	6	06	
024	GT01	22 01		080	ST03	35 03	
025	CLX	-51		081	6	06	
026	7	07		082	5	05	
027	0	00		083	3	03	
028	X	-35		084	GT0e	22 16 15	
029	1	01		085	*LBL2	21 02	
030	4	04		086	CLX	-51	
031	5	05	$50 < i < 100$	087	5	05	Calculate for $32 < i < 38$
032	1	01		088	5	05	
033	GT0e	22 16 11		089	X	-35	
034	*LBL1	21 01		090	5	05	
035	CLX	-51		091	3	03	
036	9	09		092	9	09	
037	0	00		093	GT0e	22 16 11	
038	X>Y?	16-34		094	*LBL1	21 01	
039	GT02	22 02		095	6	06	
040	CLX	-51		096	-	-45	
041	6	06	$50 < i < 90$	097	X>Y?	16-34	$22 < i < 26$
042	9	09		098	GT01	22 01	
043	X	-35		099	CLX	-51	
044	1	01		100	5	05	
045	3	03		101	3	03	
046	5	05		102	X	-35	
047	1	01		103	4	04	
048	GT0e	22 16 11		104	7	07	
049	*LBL2	21 02		105	5	05	
050	6	06		106	GT0e	22 16 11	
051	2	02	Store constants for $50 < i < 90$	107	*LBL1	21 01	Calculate for $22 < i < 26$
052	ST04	35 04		108	CLX	-51	
053	1	01		109	5	05	
054	0	00		110	0	00	
055	ST03	35 03		111	X	-35	
056	8	08		112	3	03	

REGISTERS

0	1	2	3	4	5	6	7	8	9
	i	i_1	Δi	R_i	ΔR	T_i	N		Rate
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS	
113	9	09		165	1	01		
114	7	07		166	ST05	35 05	Store Constants	
115	GT0a	22 16 11		167	.	-62	for $i < v$	
116	*LBL0	21 00	$i < v$	168	5	05		
117	CLX	-51		169	ST03	35 03		
118	1	01		170	CLX	-51		
119	0	00		171	ST02	35 02		
120	X>Y?	16-34		172	*LBLc	21 16 15		
121	GT00	22 00	$10 < i < v$	173	RCL1	36 01	$N = \text{INT} \left(\frac{i-i_1}{\Delta i} \right)$	
122	2	02		174	RCL2	36 02		
123	+	-55		175	-	-45		
124	X>Y?	16-34		176	RCL3	36 03		
125	GT01	22 01	$10 < i < v$	177	=	-24		
126	ST02	35 02		178	INT	16 34		
127	3	03	} Store Constants for $12 < i < v$	179	ST07	35 07		
128	ST05	35 05		180	X ²	53		
129	x	-35		181	LSTX	16-63		
130	ST04	35 04		182	+	-55	$D = \left[\left(\frac{N+N}{2} \right) \Delta R \Delta i \right.$	
131	1	01		183	2	02	$\left. + N \Delta R i_1 + T_1 \right]$	
132	4	04		184	=	-24		
133	9	09		185	RCL3	36 03		
134	GT0e	22 16 15		186	x	-35		
135	*LBL1	21 01	$10 < i < v$	187	RCL5	36 05		
136	CLX	-51		188	x	-35		
137	3	03	} Calculate for $10 < i < v$	189	RCL7	36 07		
138	2	02		190	RCL2	36 02		
139	x	-35		191	x	-35		
140	1	01		192	RCL5	36 05		
141	0	00		193	x	-35		
142	1	01		194	+	-55		
143	*LBLa	21 16 11		195	+	-55		
144	LSTX	16-63	<u>Final Routine</u>	196	RCL4	36 04		
145	ST09	35 09	Store Rate	197	RCL7	36 07		
146	R4	-31	and Complete	198	RCL5	36 05	$R = R_1 + N \Delta R$	
147	GT03	22 03	Calculation	199	x	-35		
				200	+	-55		
				201	ST09	35 09		
				202	RCL1	36 01		
				203	x	-35		
				204	R4	16-31		
				205	*LBL3	21 03		
				206	-	-45		
				207	1	01		
				208	0	00		
				209	x	-35		
				210	X<0?	16-45		
				211	CLX	-51		
				212	RTN	24		
				213	*LBLC	21 13		
				214	DSP0	-63 00		
				215	RCL9	36 09		
				216	RTN	24		
				217	*LBLA	21 11		
				218	2	02		
				219	=	-24		
				220	GSBB	23 12		
				221	2	02		
				222	x	-35		
				223	RTN			
148	*LBL0	21 00	$10 < i < v$					
149	CLX	-51						
150	2	02						
151	X>Y?	16-34						
152	GT00	22 00	$i < v$					
153	ST02	35 02						
154	3	03						
155	ST05	35 05	} Store Constants for $2 < i < 10$					
156	1	01						
157	9	09						
158	ST04	35 04						
159	7	07						
160	GT0e	22 16 15						
161	*LBL0	21 00	} Store Constants for $i < v$					
162	1	01						
163	4	04						
164	ST04	35 04						

LABELS					SET STATUS			
A JOINT	B SEPARATE	C RATE	D	E	TRIG		DISP	
a Calculate	b	c	d	e Calculate	0 ☐	DEG ☒	FIX ☒	
0 skip	1 skip	2 skip	3	4	1 ☐	GRAD ☐	SCI ☐	
5	6	7	8	9	2 ☐	RAD ☐	ENG ☐	
					3 ☐		n 2	

Program Description I

31

Program Title	Schedule TC	Tax Computation Schedule	Form 1040
Contributor's Name	Herman G. Herbig		
Address	P.O. Box 731		
City	Minden	State Nevada	Zip Code 89423

Program Description, Equations, Variables

Tax payers filing as single, married filing separately or unmarried head of household with adjusted gross incomes of \$20,000+ or qualifying widow(er) and married filing jointly with adjusted gross incomes of \$40,000+ must determine their tax liability by completing Schedule TC.

Operating Limits and Warnings

This program completes only part 1 of schedule TC₁ "Tax Computation for Taxpayers Who Cannot Use the Tax Tables".

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

Sample Problem (s) Calculate the tax and generate line items for the following taxpayers:

SINGLE (BOX 1)

Tax Table Income - \$30,000
Exemptions - 1
Tax - \$ 8,760

MARRIED FILING SEPARATELY (BOX 3)

Tax Table Income - \$33,600
Exemptions - 3
Tax - \$12,210

Solution (s) SINGLE
INPUT

1 [f] [A]
1 [A]
30000 [B]
8760 [E]

MARRIED FILING SEPARATELY

3 [f] [A]
3 [A]
33600 [B]
12210 [C]
[E]

SINGLE

Line	Entry
1	30,000
2	750
3	29,250
4	8,760
5	35
6	29,250
7	2,200
8	27,050
9	180
10	180
11	\$8,580

MARRIED FILING SEPARATELY

Line	Entry
1	33,600
2	2,250
3	31,350
4	12,210
5	105
10	105
11	12,105

Reference(s)

IRS Schedule TC (Form 1040) and Instructions.

User Instructions

33

1

FS

EX

TTI

TAX

RUN

SCHEDULE TC - FORM 1040 - PART 1

2

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS		OUTPUT DATA/UNITS
1.	Load side 1 and side 2				
2.	Enter filing status as indicated on form 1040 lines 1-5	FS			
			f	A	FS
3.	Enter number of exemptions claimed from line 7 form 1040	EX		A	EX
4.	Enter tax table income from line 34 form 1040	TTI		B	TTI
5.	Enter tax from Schedule D,G,X,Y, or Z or form 4726	TAX		C	TAX
6.	Execute			E	1
	Lines 1 through 11 will be output for all taxpayers except those who are married and filing separately. These taxpayers are to omit lines 6 through 9 and in this case the program logic skips from line 5 to line 10 and continues				Line 1
					2
					Line 2
					3
					Line 3
					4
					Line 4
					5
					Line 5
					6
					Line 6
					7
					Line 7
					8
					Line 8
					9
					Line 9
					10
					Line 10
					11
					Line 11
7.	For new case go to step 2.				

97 Program Listing I

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLA	21 11	Load exemptions	056	2	02	
002	ST02	35 02		057	X=Y?	16-33	Branch if
003	RTN	24		058	GT02	22 02	qualifying widow(er)
004	*LBLB	21 12	Load tax table	059	RCL5	36 05	
005	ST01	35 01	income	060	5	05	
006	RTN	24		061	X=Y?	16-33	
007	*LBLC	21 13	Load income tax	062	GT02	22 02	Select \$220 if
008	ST04	35 04		063	2	02	single or
009	RTN	24		064	2	02	unmarried head of
010	*LBL0	21 00	Increment Line	065	0	00	household
011	ISZI	16 26 46	number	066	0	00	Line 7
012	DSP0	-63 00		067	PRTX	-14	
013	RCL1	36 46		068	ST06	35 06	
014	PRTX	-14		069	*LBL4	21 04	
015	DSP2	-63 02		070	GSB0	23 00	
016	RTN	24		071	RCL3	36 03	
017	*LBLE	21 15	Initialize:	072	RCL6	36 06	
018	0	00	For line numbers	073	-	-45	Line 8
019	ST01	35 46	Line 1	074	PRTX	-14	
020	GSB0	23 00		075	GSB0	23 00	
021	RCL1	36 01		076	R4	-31	2% of line 8
022	PRTX	-14		077	2	02	
023	GSB0	23 00	Calculate exemption	078	%	55	
024	RCL2	36 02	x \$750	079	ST09	35 09	But not more than
025	7	07		080	1	01	\$180
026	5	05		081	8	08	
027	0	00		082	0	00	
028	X	-35	Line 2	083	X>Y?	16-34	
029	PRTX	-14		084	GT01	22 01	Line 9
030	GSB0	23 00	Calculate taxable	085	PRTX	-14	Complete general
031	R4	-31	income	086	*LBL5	21 05	tax credit
032	RCL1	36 01		087	GSB0	23 00	Larger or line 5
033	XZY	-41		088	R4	-31	or line 9
034	-	-45		089	RCL0	36 00	
035	ST03	35 03	Line 3	090	X>Y?	16-34	
036	PRTX	-14		091	GT06	22 06	Line 10
037	GSB0	23 00		092	R4	-31	Tax = Income tax
038	RCL4	36 04	Line 4	093	PRTX	-14	- Tax credits
039	PRTX	-14		094	*LBL7	21 07	but not less than
040	GSB0	23 00	Calculate general	095	ST-4	35-45 04	zero
041	RCL2	36 02	tax credit	096	GSB0	23 00	
042	3	03	Exemptions x \$35	097	RCL4	36 04	
043	5	05		098	X#0?	16-42	
044	X	-35		099	GT08	22 08	
045	PRTX	-14	Line 5	100	0	00	Line 11
046	ST00	35 00	Branch if married	101	PRTX	-14	
047	RCL5	36 05	filing separately	102	RTN	24	
048	3	03		103	*LBL8	21 08	Optional line 11
049	X=Y?	16-33		104	PRTX	-14	
050	GT03	22 03	Taxable income	105	RTN	24	
051	GSB0	23 00		106	*LBLE	21 06	Optional line 10
052	RCL3	36 03	Line 6	107	RCL0	36 00	
053	PRTX	-14		108	PRTX	-14	
054	GSB0	23 00	Branch if married	109	GT07	22 07	
055	RCL5	36 05	filing jointly	110	RTN	24	Optional line 9

REGISTERS

0 Used	1 Tax Table	2 Exemp.	3 Taxable	4 Income	5 Filing	6 Used	7	8	9 Used
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

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[illegible]

Program Description I

Program Title	Tax Deduction Schedule A Form 1040 Medical and Dental		
Contributor's Name	Hewlett-Packard		
Address	1000 N.E. Circle Blvd.		
City	Corvallis	State	Oregon
		Zip Code	97330

Program Description, Equations, Variables

Given the amounts spent by a taxpayer for medical care, for medicine and drugs, and for doctors, dentists, hospitals, etc. and his adjusted gross income for the tax period the program prints the ten line items on schedule A Form 1040

Operating Limits and Warnings Program must be run sequentially A thru D. Data for later steps is produced in the earlier steps of the program.

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

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SAMPLE PROBLEMS

	PROBLEM 1	PROBLEM 2
Insurance Cost	299.98	300.01
Medicine & Drugs	99.00	400.00
Adj. Gross Income	10,000.00	20,000.00
Doctors, Dentists, Hosp.	100.00	1,600.00

SOLUTION(s)	LN #	SOLUTION 1	SOLUTION 2
		299.98 [A]	300.01 [A]
		99 [B]	400 [B]
		10,000 [C]	20,000 [C]
		100 [D]	1,600 [D]
1. One half (but not more than \$150) of insurance premiums for med. care	1	149.99	150.00
2. Medicine and drugs	2	99.00	400.00
3. Enter 1% of Adj. Gross Income	3	100.00	200.00
4. Subtract 3 from 2. Enter difference (if less than zero enter zero)	4	0.00	200.00
5. Enter balance of insurance premiums not entered on line 1	5	149.99	150.01
6. Other medical & dental exp. (doctors, dentists, hospitals)	6	100.00	1600.00
7. Total (lines 4,5,6)	7	249.99	1950.01
8. Enter 3% of line 3 Form 1040, Adj. Gross Income	8	300.00	600.00
9. Subtract line 8 from line 7 (if less than zero, enter zero)	9	0.00	1350.01
10. Total (add lines 1&9)	10	149.99	1500.01

Program Description II

Sketch(es)

299.98 GSBA
99.00 GSBB
10000.00 GSBC
100.00 GSBD

1.00 ***
149.99 ***

2.00 ***
99.00 ***

3.00 ***
100.00 ***

4.00 ***
0.00 ***

5.00 ***
149.99 ***

6.00 ***
100.00 ***

7.00 ***
249.99 ***

8.00 ***
300.00 ***

9.00 ***
0.00 ***

10.00 ***
149.99 ***

300.01 GSBA
400.00 GSBB
20000.00 GSBC
1600.00 GSBD

1.00 ***
150.00 ***

2.00 ***
400.00 ***

3.00 ***
200.00 ***

4.00 ***
200.00 ***

5.00 ***
150.01 ***

6.00 ***
1600.00 ***

7.00 ***
1950.01 ***

8.00 ***
600.00 ***

9.00 ***
1350.01 ***

10.00 ***
1500.01 ***

Sample Problem(s)

Solution(s)

Figures in sample problems were chosen to show the rejection of negative numbers and the substitution of zeros, and discrimination where limits are set. Otherwise round figures were chosen to facilitate following the flow of the problem.

Reference(s) Schedule A, Form 1040 Federal Tax Return for 1977.

This program was based on an HP-65 Users' Library program #2386A submitted by David D. England.

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2[illegible]

97 Program Listing I

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLA	21 11		057	ST05	35 05	
002	ENT↑	-21		058	RCL3	36 03	
003	ENT↑	-21		059	+	-55	
004	ENT↑	-21		060	RCL4	36 04	
005	2	02		061	+	-55	
006	÷	-24		062	ST06	35 06	Line 7
007	1	01		063	RCL7	36 07	
008	5	05		064	-	-45	
009	0	00		065	0	00	
010	XZY	-41		066	XZY	-41	
011	XZY?	16-35		067	XZY?	16-34	
012	GT01	22 01		068	GT03	22 03	
013	1	01		069	0	00	
014	5	05		070	*LBL3	21 03	Line 9
015	0	00		071	ST08	35 08	
016	*LBL1	21 01		072	RCL0	36 00	
017	ST00	35 00	Line 1	073	+	-55	
018	R↓	-31		074	ST09	35 09	Line 10
019	R↓	-31		075	0	00	
020	CLX	-51		076	ST01	35 46	
021	RCL0	36 00		077	*LBL4	21 04	
022	-	-45		078	SPC	16-11	Print line #'s
023	ST04	35 04	Line 5	079	RCLI	36 46	sequentially
024	RTN	24		080	1	01	
025	*LBLB	21 12		081	+	-55	
026	ST01	35 01	Line 2	082	PRTX	-14	
027	RTN	24		083	RCLi	36 45	
028	*LBLC	21 13		084	PRTX	-14	
029	ENT↑	-21		085	ISZI	16 26 46	
030	ENT↑	-21		086	S	09	
031	ENT↑	-21		087	RCLI	36 46	
032	.	-62		088	XZY?	16-34	
033	0	00		089	R/S	51	
034	1	01		090	GT04	22 04	
035	x	-35		091	RTN	24	
036	ST02	35 02	Line 3	092	R/S	51	
037	CHS	-22					
038	RCL1	36 01					
039	+	-55					
040	0	00					
041	XZY	-41					
042	XZY?	16-34					
043	GT02	22 02					
044	0	00		100			
045	*LBL2	21 02					
046	ST03	35 03	Line 4				
047	R↓	-31					
048	R↓	-31					
049	CLX	-51					
050	.	-62					
051	0	00					
052	3	03					
053	x	-35		110			
054	ST07	35 07	Line 8				
055	RTN	24	(Line 6)				
056	*LBLD	21 14					

REGISTERS

0	1	2	3	4	5	6	7	8	9
Ln 1	Ln 2	Ln 3	Ln 4	Ln 5	Ln 6	Ln 7	Ln 8	Ln 9	Ln 10
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

Program Description I

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Program Title	Maximum Tax on earned Income - 1977 and After		
Contributor's Name	Howard B. Kutner, CPA		
Address	370 Lexington Avenue - Rm 909		
City	New York	State	N.Y.
		Zip Code	10017

Program Description, Equations, Variables

This program calculates the Maximum Tax on Earned Income under Sec 1348 a) of the Internal Revenue Code, as amended in 1976, and will also generate, as an option, the line numbers and entries required for completion of Form 4726 which is required to be attached to the Federal Income Tax Return. The program may be used for married or single status, for Head of Household or for Estates and Trusts or Married Taxpayers filing separately.

Tax rates must be input at two points in the program but are retained in memory and need not be re-entered for subsequent cases unless they are not appropriate.

Tax rates are input in two steps - First by entering the bracket appropriate to the displayed amount; and then the Tax on that bracket (T) and the rate on any excess (R) in the format TT.RR where T is the tax and R is the Rate.

Line output for Form 4726 is retrieved after calculation by depressing a single key.

Operating Limits and Warnings Data Entry at Steps 5, 6 and 7 must be entered during pause in display - not during loop cycle.

If Stored Tax rate is used at Step 8, Taxpayer status (married, single etc.) must be consistent with stored rate data.

For years prior to 1977 this program is not applicable use program #00302-D for earlier years.

Married Taxpayers filing Separately are not eligible for Max Tax.

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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Maximum Tax on Personal Service Income

► **Attach to Form 1040 (or Form 1041).**

1977

Name(s) as shown on Form 1040 (or Form 1041)

Identifying number

Do not complete this form if—

(a) Taxable income or personal service taxable income is:
\$40,200 or less, and on Form 1040, you checked box 1 or box 4,
\$55,200 or less, and on Form 1040, you checked box 2 or box 5,
\$26,000 or less and this is an Estate or Trust return (Form 1041);

(b) You elected income averaging; or

(c) On Form 1040, you checked box 3.

A—Personal Service Income		B—Deductions Against Personal Service Income	
Total personal service income		Total deductions against personal service income	

1	Personal service net income—Subtract total amount in column B from total amount in column A		1
2	Enter your adjusted gross income		2
3	Divide the amount on line 1 by the amount on line 2. Enter percentage result here, but not more than 100%		3
4	Enter your taxable income		4
5	Multiply the amount on line 4 by the percentage on line 3		5
6	Enter the total of your 1977 tax preference items		6
7	Personal service taxable income. Subtract line 6 from line 5 (see instructions)		7
8	If: on Form 1040, you checked box 1 or box 4, enter \$40,200 on Form 1040, you checked box 2 or box 5, enter \$55,200 Estate or Trust, enter \$26,000		8
9	Subtract line 8 from line 7 (if zero or less, do not complete rest of form)		9
10	Enter 50% of line 9		10
11	Tax on amount on line 4 (use Tax Rate Schedule from Form 1040 (or Form 1041) instructions)	11	
12	Tax on amount on line 7 (use Tax Rate Schedule from Form 1040 (or Form 1041) instructions)	12	
13	Subtract line 12 from line 11		13
14	If the amount on line 8 is: \$40,200, enter \$13,290 (\$12,240 if unmarried head of household) \$55,200, enter \$18,060 \$26,000, enter \$9,030		14
15	Add lines 10, 13, and 14. This is your maximum tax. (See instructions)		15

Computation of Alternative Tax

16	Amount from line 4	16
17	Amount from Schedule D (Form 1040), line 15(a)* (or Form 1041, page 1, line 22)	17
18	Subtract line 17 from line 16	18
If line 17 does not exceed \$25,000, check here ☐ and omit lines 19 through 22.		
19	Enter amount from line 18 plus \$25,000	19
20	Enter amount from line 11	20
21	Tax on amount on line 19 (use Tax Rate Schedule from Form 1040 (or 1041) instructions)	21
22	Subtract line 21 from line 20	22
23	Tax on amount on line 18 (use Tax Rate Schedule from Form 1040 (or 1041) instructions)	23
24	Subtract line 23 from line 11	24
25	Subtract line 24 from line 15	25
26	If the block on line 18 is checked, enter 50% of line 17; otherwise, enter \$12,500	26
27	Alternative tax, add lines 22 (if applicable), 25 and 26. (See instructions)	27

* If you reported capital gain distributions but did not use Schedule D (Form 1040), enter on line 17 the amount shown on Form 1040, line 15.

1977 Tax Rate Schedules

If you cannot use one of the Tax Tables, figure your tax on the amount on Schedule TC, Part I, line 3, by using the appropriate Tax Rate Schedule on this page. Enter tax on Schedule TC, Part I, line 4.
Note: Your zero bracket amount has been built into these Tax Rate Schedules.

SCHEDULE X—Single Taxpayers Not Qualifying for Rates in Schedule Y or Z

Use this schedule if you checked Box 1 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$2,200.....	—0—		
Over—	But not over—	of the amount over—	
\$2,200	\$2,700	14%	\$2,200
\$2,700	\$3,200	\$70+15%	\$2,700
\$3,200	\$3,700	\$145+16%	\$3,200
\$3,700	\$4,200	\$225+17%	\$3,700
\$4,200	\$6,200	\$310+19%	\$4,200
\$6,200	\$8,200	\$690+21%	\$6,200
\$8,200	\$10,200	\$1,110+24%	\$8,200
\$10,200	\$12,200	\$1,590+25%	\$10,200
\$12,200	\$14,200	\$2,090+27%	\$12,200
\$14,200	\$16,200	\$2,630+29%	\$14,200
\$16,200	\$18,200	\$3,210+31%	\$16,200
\$18,200	\$20,200	\$3,830+34%	\$18,200
\$20,200	\$22,200	\$4,510+36%	\$20,200
\$22,200	\$24,200	\$5,230+38%	\$22,200
\$24,200	\$28,200	\$5,990+40%	\$24,200
\$28,200	\$34,200	\$7,590+45%	\$28,200
\$34,200	\$40,200	\$10,290+50%	\$34,200
\$40,200	\$46,200	\$13,290+55%	\$40,200
\$46,200	\$52,200	\$16,590+60%	\$46,200
\$52,200	\$62,200	\$20,190+62%	\$52,200
\$62,200	\$72,200	\$26,390+64%	\$62,200
\$72,200	\$82,200	\$32,790+66%	\$72,200
\$82,200	\$92,200	\$39,390+68%	\$82,200
\$92,200	\$102,200	\$46,190+69%	\$92,200
\$102,200		\$53,090+70%	\$102,200

SCHEDULE Y—Married Taxpayers and Qualifying Widows and Widowers

If you are a married person living apart from your spouse, see page 7 of the instructions to see if you can be considered to be "unmarried" for purposes of using Schedule X or Z.

Married Filing Joint Returns and Qualifying Widows and Widowers

Use this schedule if you checked Box 2 or Box 5 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$3,200.....	—0—		
Over—	But not over—	of the amount over—	
\$3,200	\$4,200	14%	\$3,200
\$4,200	\$5,200	\$140+15%	\$4,200
\$5,200	\$6,200	\$290+16%	\$5,200
\$6,200	\$7,200	\$450+17%	\$6,200
\$7,200	\$11,200	\$620+19%	\$7,200
\$11,200	\$15,200	\$1,380+22%	\$11,200
\$15,200	\$19,200	\$2,260+25%	\$15,200
\$19,200	\$23,200	\$3,260+28%	\$19,200
\$23,200	\$27,200	\$4,380+32%	\$23,200
\$27,200	\$31,200	\$5,660+36%	\$27,200
\$31,200	\$35,200	\$7,100+39%	\$31,200
\$35,200	\$39,200	\$8,660+42%	\$35,200
\$39,200	\$43,200	\$10,340+45%	\$39,200
\$43,200	\$47,200	\$12,140+48%	\$43,200
\$47,200	\$55,200	\$14,060+50%	\$47,200
\$55,200	\$67,200	\$18,060+53%	\$55,200
\$67,200	\$79,200	\$24,420+55%	\$67,200
\$79,200	\$91,200	\$31,020+58%	\$79,200
\$91,200	\$103,200	\$37,980+60%	\$91,200
\$103,200	\$123,200	\$45,180+62%	\$103,200
\$123,200	\$143,200	\$57,580+64%	\$123,200
\$143,200	\$163,200	\$70,380+66%	\$143,200
\$163,200	\$183,200	\$83,580+68%	\$163,200
\$183,200	\$203,200	\$97,180+69%	\$183,200
\$203,200		\$110,980+70%	\$203,200

Married Filing Separate Returns

Use this schedule if you checked Box 3 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$1,600.....	—0—		
Over—	But not over—	of the amount over—	
\$1,600	\$2,100	14%	\$1,600
\$2,100	\$2,600	\$70+15%	\$2,100
\$2,600	\$3,100	\$145+16%	\$2,600
\$3,100	\$3,600	\$225+17%	\$3,100
\$3,600	\$5,600	\$310+19%	\$3,600
\$5,600	\$7,600	\$690+22%	\$5,600
\$7,600	\$9,600	\$1,110+25%	\$7,600
\$9,600	\$11,600	\$1,590+28%	\$9,600
\$11,600	\$13,600	\$2,090+32%	\$11,600
\$13,600	\$15,600	\$2,630+36%	\$13,600
\$15,600	\$17,600	\$3,210+39%	\$15,600
\$17,600	\$19,600	\$3,830+42%	\$17,600
\$19,600	\$21,600	\$4,510+45%	\$19,600
\$21,600	\$23,600	\$5,230+48%	\$21,600
\$23,600	\$27,600	\$5,990+50%	\$23,600
\$27,600	\$33,600	\$7,590+53%	\$27,600
\$33,600	\$39,600	\$10,210+55%	\$33,600
\$39,600	\$45,600	\$13,210+58%	\$39,600
\$45,600	\$51,600	\$16,510+60%	\$45,600
\$51,600	\$61,600	\$20,110+62%	\$51,600
\$61,600	\$71,600	\$26,310+64%	\$61,600
\$71,600	\$81,600	\$32,710+66%	\$71,600
\$81,600	\$91,600	\$39,310+68%	\$81,600
\$91,600	\$101,600	\$46,110+69%	\$91,600
\$101,600		\$53,010+70%	\$101,600

SCHEDULE Z—Unmarried or legally separated taxpayers Who Qualify as Heads of Household

Use this schedule if you checked Box 4 on Form 1040—

If the amount on Schedule TC, Part I, line 3, is: Enter on Schedule TC, Part I, line 4:

Not over \$2,200.....	—0—		
Over—	But not over—	of the amount over—	
\$2,200	\$3,200	14%	\$2,200
\$3,200	\$4,200	\$140+16%	\$3,200
\$4,200	\$6,200	\$300+18%	\$4,200
\$6,200	\$8,200	\$660+19%	\$6,200
\$8,200	\$10,200	\$1,040+22%	\$8,200
\$10,200	\$12,200	\$1,480+23%	\$10,200
\$12,200	\$14,200	\$1,940+25%	\$12,200
\$14,200	\$16,200	\$2,440+27%	\$14,200
\$16,200	\$18,200	\$2,980+28%	\$16,200
\$18,200	\$20,200	\$3,540+31%	\$18,200
\$20,200	\$22,200	\$4,160+32%	\$20,200
\$22,200	\$24,200	\$4,800+35%	\$22,200
\$24,200	\$26,200	\$5,500+36%	\$24,200
\$26,200	\$28,200	\$6,220+38%	\$26,200
\$28,200	\$30,200	\$6,980+41%	\$28,200
\$30,200	\$34,200	\$7,800+42%	\$30,200
\$34,200	\$38,200	\$9,480+45%	\$34,200
\$38,200	\$40,200	\$11,280+48%	\$38,200
\$40,200	\$42,200	\$12,240+51%	\$40,200
\$42,200	\$46,200	\$13,260+52%	\$42,200
\$46,200	\$52,200	\$15,340+55%	\$46,200
\$52,200	\$54,200	\$18,640+56%	\$52,200
\$54,200	\$66,200	\$19,760+58%	\$54,200
\$66,200	\$72,200	\$26,720+59%	\$66,200
\$72,200	\$78,200	\$30,260+61%	\$72,200
\$78,200	\$82,200	\$33,920+62%	\$78,200
\$82,200	\$90,200	\$36,400+63%	\$82,200
\$90,200	\$102,200	\$41,440+64%	\$90,200
\$102,200	\$122,200	\$49,120+66%	\$102,200
\$122,200	\$142,200	\$62,320+67%	\$122,200
\$142,200	\$162,200	\$75,720+68%	\$142,200
\$162,200	\$182,200	\$89,320+69%	\$162,200
\$182,200		\$103,120+70%	\$182,200

Program Description II

Sketch(es)

TAX RATE TABLE FOR ESTATES AND TRUSTS

ONLY

For Individuals See Next Page

Not over \$500.....14% of the amount on line 25

Over—	But not over—	of excess over—
\$500	—\$1,000	\$70, plus 15% —\$500
\$1,000	—\$1,500	\$145, plus 16% —\$1,000
\$1,500	—\$2,000	\$225, plus 17% —\$1,500
\$2,000	—\$4,000	\$310, plus 19% —\$2,000
\$4,000	—\$6,000	\$690, plus 22% —\$4,000
\$6,000	—\$8,000	\$1,130, plus 25% —\$6,000
\$8,000	—\$10,000	\$1,630, plus 28% —\$8,000
\$10,000	—\$12,000	\$2,190, plus 32% —\$10,000
\$12,000	—\$14,000	\$2,830, plus 36% —\$12,000
\$14,000	—\$16,000	\$3,550, plus 39% —\$14,000
\$16,000	—\$18,000	\$4,330, plus 42% —\$16,000
\$18,000	—\$20,000	\$5,170, plus 45% —\$18,000
\$20,000	—\$22,000	\$6,070, plus 48% —\$20,000
\$22,000	—\$26,000	\$7,030, plus 50% —\$22,000
\$26,000	—\$32,000	\$9,030, plus 53% —\$26,000
\$32,000	—\$38,000	\$12,210, plus 55% —\$32,000
\$38,000	—\$44,000	\$15,510, plus 58% —\$38,000
\$44,000	—\$50,000	\$18,990, plus 60% —\$44,000
\$50,000	—\$60,000	\$22,590, plus 62% —\$50,000
\$60,000	—\$70,000	\$28,790, plus 64% —\$60,000
\$70,000	—\$80,000	\$35,190, plus 66% —\$70,000
\$80,000	—\$90,000	\$41,790, plus 68% —\$80,000
\$90,000	—\$100,000	\$48,590, plus 69% —\$90,000
\$100,000		\$55,490, plus 70% —\$100,000

Sample Problem(s)

- Using the following data * determine the maximum tax on earned income for
 - Married Taxpayer
 - Single Taxpayer
 - Head of Household
 - Estate or Trust
- Repeat the calculation for 1 d) above (Estate or Trust) using Stored Tax Rates (see Step 8 of Instructions)
- Obtain line output for Form 4726 for Problem 2) above
- Do any calculation using Earned Income of \$10,000 to obtain "inapplicable" indication

* DATA: Taxable Income \$80,000; Adj. Gross Inc. \$105,000; Earned Inc. \$95,000
Tax Preference Income \$9,000.

Solution(s)

- 1) a) \$31,238.57 b) \$35,672.67 c) \$33,781.52 d) \$38,556.67
- 2) Same Results
- 3) See next page for line output tape
- 4) No Solution

Reference(s)

Internal Revenue Code Sec 1348a) and Regulations
Internal Revenue Service Form 4726 and Instructions
Tax Reform Act of 1976

User Instructions

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STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1.	Enter Program (for calculations)			
2.	Protect Data in Memory (optional)		f P ≥ S	
3.	Choose Print Mode (optional)		f b	1.00
4.	Enter Taxable Income - (assume married)	80,000	A	1.00(flashing)
5.	Enter Adjusted Gross Income	105,000	NONE	2.00(flashing)
6.	Enter Earned Net Income	95,000	NONE	3.00(flashing)
7.	Enter Tax Preference Income	9,000	NONE	
	Sample Tax Rate (on Tape)			0.
	Taxable Amt (in Display)			80,000.00
8.	Sample Tax Rate is not in memory, so:			
	a) Enter Tax Bracket	79,200	R/S	1.00
	b) Enter Tax on Bracket and Rate on Excess	31,020.58	R/S	
	Sample Tax Rate (on Tape)			0.
	Taxable Amt (in Display)			63,380.95
9.	Sample Tax Rate is not in memory, so:			
	a) Enter Tax Bracket	55,200	R/S	1.00
	b) Enter Tax on Bracket and Rate on Excess	18,060.53	R/S	31,238.57
	REPEAT OF ABOVE SOLUTION UTILIZING STORED TAX RATES			
	(Normally used for modifications of initial calculations or redundant calculations with modified input)			
4.	Enter Taxable Income	80,000	A	1.00(flashing)
5.	Enter Adjusted Gross Income	105,000	NONE	2.00(flashing)
6.	Enter Earned Net Income	95,000	NONE	3.00(flashing)
7.	Enter Tax Preference Income	9,000	NONE	
	Sample Tax Rate (on Tape)			58.
	Taxable Amt (in display)			80,000.00

Program Description II

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Sketch(es)

Sample Problem(s)

#3 Solution
Line Output for Form 4726 for Sample
Problem # 1a)

1.	***
95000.00	***
2.	***
105000.00	***
3.	***
0.90	***
4.	***
60000.00	***
5.	***
72390.95	***
6.	***
5000.00	***
7.	***
63380.95	***
8.	***
55200.00	***
9.	***
6180.95	***
10.	***
4090.40	***
11.	***
31484.00	***
12.	***
22395.90	***
13.	***
9088.10	***
14.	***
10060.00	***
15.	***
31239.57	***

Solution(s)

Reference(s)

[illegible]

97 Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBLA	21 11	Joint	057	GSBE	23 15	Tax Calculation
002	GSBd	23 16 14		058	ST05	35 05	
003	2	02		059	RCL2	36 02	
004	STX3	35-35 03		060	ISZI	16 26 46	
005	CLX	-51		061	GSBE	23 15	
006	5	05		062	ST06	35 06	
007	5	05		063	CHS	-22	
008	2	02		064	RCL4	36 04	
009	EEX	-23		065	+	-55	
010	2	02		066	RCL5	36 05	
011	ST00	35 00	Single	067	+	-55	Accumulate Compon- ents of Max Tax
012	ST03	22 03		068	RCL3	36 03	
013	*LBLB	21 12		069	1	01	
014	GSBd	23 16 14		070	0	00	
015	4	04		071	X	-35	
016	2	02		072	ST03	35 03	
017	6	06		073	+	-55	
018	ST02	22 02		074	ST0A	35 11	
019	*LBLC	21 13		075	F0?	16 23 00	
020	GSBd	23 16 14		076	SPC	16-11	
021	3	03	Hd of Hse	077	F0?	16 23 00	Set Index for Loop
022	2	02		078	PRTX	-14	
023	1	01		079	RTN	24	
024	*LBL2	21 02		080	*LBLd	21 16 14	
025	ST+3	35-55 03		081	3	03	
026	CLX	-51		082	CHS	-22	
027	4	04		083	ST01	35 46	
028	0	00		084	XZY	-41	
029	2	02		085	9	09	
030	EEX	-23		086	0	00	
031	2	02	Estates + Trusts	087	3	03	Store Basic Constant
032	ST00	35 00		088	ST03	35 03	
033	ST03	22 03		089	XZY	-41	
034	*LBLc	21 16 11		090	F0?	16 23 00	
035	GSBd	23 16 14		091	PRTX	-14	
036	CLX	-51		092	ST01	35 01	
037	2	02		093	1	01	
038	6	06		094	GSBe	23 16 13	
039	EEX	-23		095	F0?	16 23 00	
040	3	03		096	PRTX	-14	
041	ST00	35 00	If Max Tax is not applicable Display error Otherwise Calculate	097	ST09	35 09	Adjusted Gross Inc.
042	*LBL3	21 03		098	=	-24	
043	RCL2	36 02		099	2	02	
044	XZY?	16-35		100	GSBe	23 16 13	
045	Y*	31		101	F0?	16 23 00	
046	-	-45		102	PRTX	-14	
047	2	02		103	ST08	35 08	
048	=	-24		104	X	-35	
049	CHS	-22		105	ST02	35 02	
050	ST04	35 04		106	3	03	
051	RCL1	36 01	Set Index	107	GSBe	23 16 13	Earned Income
052	2	02		108	F0?	16 23 00	
053	1	01		109	PRTX	-14	
054	ST01	35 46		110	ST07	35 07	
055	CLX	-51		111	-	-45	
056	+	-55		112	ST02	35 02	

REGISTERS

0 50% TAX bkt Inc	1 TAXABLE INCOME	2 EARNED TAXABLE INC	3 TAX ON RO	4 50% TAX	5 TAX ON R1	6 TAX ON R2	7 PREF. ITEMS	8 EARNED NET INC.	9 ADJUSTED GROSS INC.
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A MAX TAX	B TAX RATE DATA	C TAX RATE DATA	D	E	I INDEX				

97 Program Listing II

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	X<0?	16-45	Test for negative earned Taxable Inc	169	RTN	24	Print Line Entries
114	LN	32		170	*LBL4	21 04	
115	RTN	24	Tax Calculation	171	CF0	16 22 00	
116	*LBL5	21 15		172	0	00	
117	CF2	16 22 02	Test Stored Data	173	RTN	24	
118	CF3	16 22 03		174	*LBL5	21 05	
119	GSB1	23 01	Use Keyboard Entries	175	ISZ1	16 26 46	
120	F2?	16 23 02		176	X*1	16-41	
121	RTN	24		177	DSP0	-63 00	
122	1	01		178	PRTX	-14	
123	R/S	51		179	DSP2	-63 02	
124	X	-35		180	X*1	16-41	
125	INT	16 34		181	PRTX	-14	
126	X*Y	-41		182	RTN	24	
127	LSTX	16-63		183	*LBLD	21 14	Line Entry Routine
128	FRC	16 44	Stored Tax Rate Routine	184	0	00	
129	ST01	35 45		185	ST01	35 46	
130	X	-35		186	RCL8	36 08	
131	-	-45		187	GSB5	23 05	
132	CHS	-22		188	RCL9	36 09	
133	R↑	16-31		189	GSB5	23 05	
134	RCL1	36 45		190	=	-24	
135	X	-35		191	GSB5	23 05	
136	X*Y	-41		192	RCL1	36 01	
137	ST+1	35-55 45	Data Entry Loop	193	GSB5	23 05	
138	-	-45		194	X	-35	
139	RTN	24		195	GSB5	23 05	
140	*LBL1	21 01		196	RCL7	36 07	
141	RCL1	36 45		197	GSB5	23 05	
142	FRC	16 44		198	-	-45	
143	PRTX	-14		199	GSB5	23 05	
144	X*Y	-41		200	RCL0	36 00	
145	R/S	51		201	GSB5	23 05	
146	F3?	16 23 03		202	-	-45	
147	RTN	24	Print Toggle	203	GSB5	23 05	
148	X	-35		204	RCL4	36 04	
149	RCL1	36 45		205	GSB5	23 05	
150	INT	16 34		206	RCL5	36 05	
151	-	-45		207	GSB5	23 05	
152	SF2	16 21 02		208	RCL6	36 06	
153	RTN	24		209	GSB5	23 05	
154	*LBL6	21 16 13		210	-	-45	
155	CF3	16 22 03		211	GSB5	23 05	
156	PSE	16 51		212	RCL3	36 03	
157	F3?	16 23 03		213	GSB5	23 05	
158	GT00	22 00		214	+	-55	
159	GT01	22 45		215	RCL4	36 04	
160	*LBL0	21 00		216	+	-55	
161	X*Y	-41		217	GSB5	23 05	
162	R↓	-31		218	RTN	24	
163	RTN	24		219	R/S	51	
164	*LBL6	21 16 12					
165	F0?	16 23 00					
166	GT04	22 04					
167	SF0	16 21 00					
168	1	01					

LABELS					FLAGS	SET STATUS		
A JOINT	B SINGLE	C HD OF HSE	D LN ENTRIES	E TAX CALC	0 PRINT?	FLAGS	TRIG	DISP
a E + T	b PRINT ?	c USED	d USED	e	1	ON OFF	DEG ☒	FIX ☒
0 EXIT	1 TAX CALC	2 SKIP	3 SKIP	4 SKIP	2	0 ☐ ☒	GRAD ☐	SCI ☐
5 LN ENTRY	6	7	8	9	3 DATA ENTRY	1 ☐ ☒	RAD ☐	ENG ☐
						2 ☐ ☒		n-2
						3 ☐ ☒		

Program Description I

Program Title	Income Averaging Tax - 1977 and Later (Revision of Program #00301-D)		
Contributor's Name	Howard B. Kutner, CPA		
Address	370 Lexington Avenue - Rm 909		
City	New York	State	New York
		Zip Code	10017

Program Description, Equations, Variables

This program calculates the Federal Individual Income Tax using the Five Year Income Averaging Provisions of the Internal Revenue Code. Base Period data is retained for use with a new case involving a base period either partially or completely the same as the preceding case. Upon completion of calculations data may be recalled from memory for insertion in Schedule G of Form 1040.

During calculation the user must input a tax rate at two points in the calculation. This is accomplished in two steps - First by entering the bracket for the displayed amount; and then the tax on that bracket and the rate on any excess in the format TT.RR where T is the Tax and R is the Rate. These entries are also retained within memory so that a new case involving similar tax brackets does not require re-entry of Tax rate data. Where retained data is inappropriate it is changed by simply entering corrected data at the appropriate step.

Operating Limits and Warnings

No provision is made for "excess community income and amounts subject to Sec 72 (m)(5) penalty" - Lines 6 + 8 of Schedule G; nor for "Income earned outside the US subject to Sec 911 and 931" - Line 2 of Schedule G.

When using Stored Tax Rates be sure Marital Status is consistent.

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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**SCHEDULE G
(Form 1040)**Department of the Treasury
Internal Revenue Service**Income Averaging**▶ See instructions on pages 3 and 4.
▶ Attach to Form 1040.**1977**

Name(s) as shown on Form 1040

Your social security number

Base Period Income and Adjustments

	(a) 1st preceding base period year 1976	(b) 2d preceding base period year 1975	(c) 3rd preceding base period year 1974	(d) 4th preceding base period year 1973
1 Taxable income				
2 Income earned outside of the United States or within U.S. possessions and excluded under sections 911 and 931				
3 If you checked, on (2 or 5 enter \$3,200) in your 1977 Form (1 or 4 enter \$2,200) each 1040, box (3 enter \$1,600) column				
4 Base period income (add lines 1, 2 and 3). If less than zero, enter zero				

Computation of Averageable Income

5 Taxable income for 1977 from Schedule TC (Form 1040), Part I, line 3	5				
6 Certain amounts received by owner-employees subject to a penalty under section 72(m)(5)	6				
7 Subtract line 6 from line 5	7				
8 Excess community income	8				
9 Adjusted taxable income (subtract line 8 from line 7). If less than zero, enter zero				9	
10 30% of the sum of line 4, columns (a) through (d)				10	
11 Averageable income (subtract line 10 from line 9)				11	

Complete the remaining parts of this form only if line 11 is more than \$3,000. If \$3,000 or less, you do not qualify for income averaging. Do not fill in rest of form.

G**Computation of Tax**

12 Amount from line 10	12		
13 20% of line 11	13		
14 Total (add lines 12 and 13)	14		
15 Excess community income from line 8	15		
16 Total (add lines 14 and 15)	16		
17 Tax on amount on line 16	17		
18 Tax on amount on line 14	18		
19 Tax on amount on line 12	19		
20 Subtract line 19 from line 18	20		
21 Multiply the amount on line 20 by 4	21		
Note: If no entry was made on line 6 above, skip lines 22 through 24 and go to line 25.			
22 Tax on amount on line 5	22		
23 Tax on amount on line 7	23		
24 Subtract line 23 from line 22	24		
25 Tax (add lines 17, 21, and 24). Enter here and on Schedule TC (Form 1040), Part I, line 4. Also check Schedule G box on Schedule TC (Form 1040), Part I, line 4	25		

Program Description II

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Sketch(es)

MARRIED TAXPAYER RATE TABLE - JOINT RETURNS

1	2	3
Income Over	Tax on Col #1	Rate on Excess
9,200	1000.00	.19
11,200	1380.00	.22
15,200	2260.00	.25
19,200	3260.00	.28

Sample Problem(s)

1) Problem #	(a)	(b)	(c)	(d)
Married Taxpayers in each case - Filing Joint Returns				
Taxable Income	10,000	20,000	20,000	40,000
Base Period Income				
Year 1	7,000	7,000	8,000	8,000
Year 2	5,500	5,500	7,000	7,000
Year 3	6,000	6,000	6,000	6,000
Year 4	5,000	5,000	4,500	4,500

2) Repeat problems a) b) c) and d) using stored data to extent possible

3) Generate line output for Schedule G for problem (d)

4) Using general tax Calculation Routine (Key E) find tax on \$9,847.00

Problem #	(a)	(b)	(c)	(d)
1) Solution	Income	3,278.80	3,316.00	8,014.80
	Avging not applicable			

2) Same solutions

3) See next page for line output

4) 1,122.93

Reference(s)

Internal Revenue Code Sec 1301 et seq

Form 1040 Schedule G - 1977 Edition

User Instructions

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
	<u>Sample Problem 1d)</u> -Enter Taxable Income	40,000	A	0.00
	Enter	8,000	R/S	0.00
	Base	7,000	R/S	0.00
	Period	6,000	R/S	0.00
	Income	4,500	R/S	17,192.00
	Enter Tax Bracket	15,200	R/S	1.00
	Enter Tax + Rate	2,260.25	R/S	11,490.00
	Enter Tax Bracket	11,200	R/S	1.00
	Enter Tax + Rate	1,380.22	R/S	8,014.80
	<u>Sample Problem 2c)</u> -(after Problem 1d) above)			
	Enter Taxable Income	20,000	A	8,000.00
		NO ENTRIES	R/S	7,000.00
			R/S	6,000.00
			R/S	4,500.00
			R/S	13,192.00
	Rate on Tape is Wrong:		R/S	TAPE → 0.25
	Enter corrected bracket	11,200	R/S	1.00
	Enter corrected Tax+Rate	1,380	R/S	11,490.00
				TAPE → 0.22
	Rate on Tape is correct	NO ENTRY	R/S	3,316.00
	<u>Sample Problem 3</u>	NO ENTRY	D	See Tape on Next Page
	<u>Sample Problem 4</u>			
	Enter Taxable Amount	9,847	E	9,847.00
				TAPE → 0.22
	Rate on Tape is Wrong:			
	Enter corrected bracket	9,200	R/S	1.00
	Enter Tax + Rate	1,000.19	R/S	1,122.93
	(If rate on tape had been correct indicating proper data in memory no entry would be required and R/S would be pressed once to generate the answer)			

55

	1.	**
8000.00	**	*
7000.00	**	*
6000.00	**	*
4500.00	**	*
3.	**	*
3000.00	**	*
3200.00	**	*

161921.00	***
16.	***
1818.24	***
17.	***
1818.24	***
18.	***
1443.90	***
19.	***
374.44	***
20.	***
1497.76	***
24.	***
3316.00	***

User Instructions

1	INCOME AVERAGING TAX	WRITE DATA PRINT/NON PRINT SCHED G
(du)	JOINT SEPARATE SINGLE	LINE ITEMS TAX CALC

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1.	Enter program			
2.	<u>OPTIONAL</u> - Enter Data Card from Prior Case			
3.	<u>OPTIONAL</u> - Choose Print Option (1.00=Print; 0.00 = No Print)		f e	1.00/0.00
4.	<u>OPTIONAL</u> - Set Display for \$ rounding or ¢		DSP 0 or 2	
5.	Enter Taxable Income			
	a) If married filing Joint return, or	TAXABLE INCOME	A	
	b) If married filing Separate return, or		B	
	c) If single		C	
6.	If display is a valid Base Period Income item	NO ENTRY	R/S	
	OR			
6a	Enter corrected Base Period Income item	Corrected Base Period Item	R/S	
7.	Repeat Step 6 for four items (4 times) Output after 4th time - (see below for error display)		TAPE = DISPLAY =	Sample Tax Rate Taxable Amount
8.	If tax Rate (on tape) is approp. for Displayed Amount	NO ENTRY	R/S	
	OR			
8.	a) Enter Tax Bracket	Bracket	R/S	1.00
	b) Enter Tax on Bracket (T)+Rate on Excess(R)	TT.RR	R/S	
9.	Repeat Step 8			Inc.Ave.Tax
10.	<u>OPTIONAL</u> - Obtain line entries for Schedule G		D	Line entries for Sched. G
11.	<u>OPTIONAL</u> - Store Data on Card for future use Enter blank Data Card		f d	Crd
<u>TAX CALCULATION ROUTINE</u>				
for separate use with any Tax Rate Table				
1.	Enter Taxable Amount	Taxable Amt	E	Tax on Entered Amt.
2.	Go to Step 8 or 8 alternate above			
<u>ERROR DISPLAY</u>				
At completion of Step 7 a display of all 9's (overflow) indicates that Averageable Income is less than 3,000 and Income Averaging is not applicable.				

97 Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBL	21 16 15	Print/No Print Toggle	057	3	03	Test Averageable Income
002	1	01		058	EEX	-23	
003	SF0	16 21 00		059	3	03	
004	R/S	51		060	X>Y?	16-34	
005	*LBL	21 16 15		061	N!	16 52	
006	CLX	-51		062	CLX	-51	
007	CF0	16 22 00		063	.	-62	
008	RTN	24		064	2	02	
009	*LBLA	21 11		065	x	-35	
010	3	03		066	RND	16 24	
011	2	02	Determine and Store "Zero Bracket Amounts"	067	RCL5	36 05	Set index for 1st Tax Calculation
012	GT03	22 03		068	+	-55	
013	*LBLB	21 12		069	ST07	35 07	
014	1	01		070	2	02	
015	6	06		071	3	03	
016	GT03	22 03		072	ST01	35 46	
017	*LBLC	21 13		073	X>Y	-41	
018	2	02		074	GSBE	23 15	
019	2	02		075	ST08	35 08	Set index for 2nd Tax Calculation
020	GT03	22 03		076	2	02	
021	*LBL3	21 03		077	4	04	
022	EEX	-23		078	ST01	35 46	
023	2	02		079	RCL5	36 05	
024	x	-35		080	GSBE	23 15	
025	ST08	35 12		081	ST00	35 00	
026	X>Y	-41		082	RCL8	36 08	
027	ST09	35 09		083	-	-45	
028	F0?	16 23 00	Initialize	084	CHS	-22	
029	PRTX	-14		085	4	04	
030	F0?	16 23 00		086	x	-35	
031	SPC	16-11		087	RCL8	36 08	Print Result?
032	4	04		088	+	-55	
033	ST01	35 46		089	F0?	16 23 00	
034	0	00		090	GT03	22 03	
035	ST05	35 05		091	ST0A	35 11	
036	*LBL0	21 00		092	RTN	24	
037	RCL1	36 45		093	*LBL3	21 03	
038	R/S	51		094	SPC	16-11	
039	ST01	35 45		095	PRTX	-14	
040	F0?	16 23 00	Loop for Entry of Base Period	096	ST0A	35 11	
041	PRTX	-14		097	SPC	16-11	Tax Calculation
042	RCLB	36 12		098	RTN	24	
043	+	-55		099	*LBL	21 15	
044	ST+5	35-55 05		100	CF2	16 22 02	
045	DSZI	16 25 46		101	CF3	16 22 03	
046	GT00	22 00		102	GSB1	23 01	
047	RCL5	36 05		103	F2?	16 23 02	
048	.	-62		104	RTN	24	
049	3	03		105	1	01	Enter Tax + Rate
050	x	-35	Calculate	106	R/S	51	
051	RND	16 24		107	x	-35	
052	ST05	35 05		108	INT	16 34	
053	RCL9	36 09		109	X>Y	-41	
054	-	-45		110	LSTX	16-63	
055	CHS	-22		111	FRC	16 44	
056	ST06	35 06		112	ST01	35 45	

REGISTERS

0 Tax on R5	1 #4	2 BASE PERIOD INCOME	3 #2	4 #1	5 Used	6 Avg Inc	7 Used	8 Tax on R7	9 TI
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A Averaged Tax	B Zero Bracket	C	D Used	E Used	F	G Index	H	I	J

97 Program Listing II

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	X	-35	Calculate Tax and store rate data	169	ISZI 16 26 46		
114	-	-45		170	GSB5 23 05		
115	CHS	-22		171	GSB4 23 04		
116	R↑	16-31		172	RCL5 36 05		
117	RCLi	36 45		173	GSB4 23 04		
118	X	-35		174	RCL6 36 06		
119	XZY	-41		175	GSB4 23 04		
120	ST+;	35-55 45		176	RCL5 36 05		
121	-	-45		177	GSB4 23 04		
122	RTN	24		178	RCL6 36 06		
123	*LBL1	21 01	Enter bracket or Calculate tax with Stored rate data	179	.	-62	
124	RCLi	36 45		180	2	02	
125	FRC	16 44		181	X	-35	
126	PRTX	-14		182	GSB4 23 04		
127	XZY	-41		183	RCL7 36 07		
128	R/S	51		184	GSB4 23 04		
129	F3?	16 23 03		185	RCL7 36 07		
130	RTN	24		186	GSB4 23 04		
131	X	-35		187	RCL8 36 08		
132	RCLi	36 45		188	GSB4 23 04		
133	INT	16 34	Recall Data and print schedule G line items	189	RCL8 36 08		
134	-	-45		190	GSB4 23 04		
135	SF2	16 21 02		191	RCL0 36 00		
136	RTN	24		192	GSB4 23 04		
137	*LBLD	21 14		193	-	-45	
138	CLX	-51		194	GSB4 23 04		
139	STOI	35 46		195	4	04	
140	GSB5	23 05		196	X	-35	
141	RCL4	36 04		197	PRTX	-14	
142	PRTX	-14		198	ISZI 16 26 46		
143	RCL3	36 03	Print subroutines	199	ISZI 16 26 46		
144	PRTX	-14		200	ISZI 16 26 46		
145	RCL2	36 02		201	GSB5 23 05		
146	PRTX	-14		202	RCL8 36 08		
147	RCL1	36 01		203	+	-55	
148	ISZI 16 26 46			204	PRTX	-14	
149	GSB4	23 04		205	RTN	24	
150	RCLB	36 12		206	*LBL6 21 06		
151	PRTX	-14		207	RCLB 36 12		
152	PRTX	-14		208	+	-55	
153	PRTX	-14		209	PRTX	-14	
154	GSB4	23 04		210	RTN	24	
155	RCL4	36 04		211	*LBL4 21 04		
156	GSB6	23 06		212	PRTX	-14	
157	RCL3	36 03		213	*LBL5 21 05		
158	GSB6	23 06		214	ISZI 16 26 46		
159	RCL2	36 02		215	XZI 16-41		
160	GSB6	23 06		216	DSP0 -63 00		
161	RCL1	36 01		217	PRTX	-14	
162	GSB6	23 06		218	DSP2 -63 02		
163	GSB5	23 05		219	XZI 16-41		
164	RCL9	36 09		220	RTN	24	
165	PRTX	-14		221	*LBLd 21 16 14		
166	ISZI 16 26 46			222	WDTA 16-61		
167	GSB5	23 05		223	RTN	24	
168	PRTX	-14		224	R/S	51	

LABELS			FLAGS			SET STATUS		
A JOINT	B SEPARATE	C SINGLE	D Sched G line	E Tax Calc	0 Print	FLAGS	TRIG	DISP
a	b	c	d	e	1	ON OFF		
0 USED	1 USED	2	3 PRINT	4 PRINT	2 Tax Calc	0 ☐ ☒	DEG ☒	FIX ☒
5 PRINT	6 USED	7	8	9	3 Tax Rate	1 ☐ ☒	GRAD ☐	SCI ☐
						2 ☐ ☒	RAD ☐	ENG ☐
						3 ☐ ☒		n 0 or 2

Program Description I

59

Program Title **FEDERAL ESTATE/GIFT TAX - 1977 AND LATER**

Contributor's Name **Howard B. KUTNER, CPA**

Address **370 Lexington Avenue - Rm 909**

City **New York** State **NY**

Zip Code **10017**

Program Description, Equations, Variables *This program utilizes a mathematical formula To represent The Federal Estate/Gift Tax Rate Table enacted by the Revenue Act of 1976 and effective for 1977 and later years. It enables the user to obtain the Tax for any Taxable Amount by pressing a single function Key. The Top bracket tax Rate may then be determined by simply pressing another Key.*

$$T = iR - D$$

$$R = .01(R_1 + N\Delta R)$$

$$D = 10 \left[\left(\frac{N^2 + N}{2} \right) \Delta R \Delta i + N \Delta R i_1 + T_1 \right]$$

$$N = \text{INT} \left(\frac{i - i_1}{\Delta i} \right)$$

TABLE OF CONSTANTS WITHIN VARIOUS BRACKETS OF i ($i = \frac{\text{Taxable}}{1000}$)

range of i	i_1	Δi	R_1	ΔR	T_1	D
0 To 20	0	10	18	2	0	—
20 To 40	—	—	22	—	—	600
40 To 100	40	20	24	2	140	—
100 To 150	—	—	30	—	—	6200
150 To 250	—	—	32	—	—	9200
250 To 500	—	—	34	—	—	14200
500 To 1,500	500	250	37	2	2920	—
1,500 To 4,500	1,500	500	45	4	11920	—
4,500 To 5,000	—	—	69	—	—	89,920
5,000 and over	—	—	70	—	—	94,920

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)

Transfers made by the individual during life and at death are cumulated and subject to one unified tax schedule. The rates for gifts made after '76 and estates of decedents dying after that date are as follows:

Amount	Amount of tax	Rate on excess
Up to \$10,000	18% of amount	
10,000	1,800	20%
20,000	3,800	22
40,000	8,200	24
60,000	13,000	26
80,000	18,200	28
100,000	23,800	30
150,000	38,800	32
250,000	70,800	34
500,000	155,800	37
750,000	248,300	39
1,000,000	345,800	41
1,250,000	448,300	43
1,500,000	555,800	45
2,000,000	780,800	49
2,500,000	1,025,800	53
3,000,000	1,290,800	57
3,500,000	1,575,800	61
4,000,000	1,880,800	65
4,500,000	2,205,800	69
5,000,000	2,550,800	70

Sample Problem(s)

Find the Federal Estate/Gift Tax for the following Transfers:

- a) 11,123.00
- b) 31,234.00
- c) 72,568.00
- d) 125,372.00
- e) 178,461.00
- f) 461,569.00
- g) 1,321,768.00
- h) 3,751,234.00
- i) 4,802,641.00
- j) 10,374,621.00

Also determine the Top Tax Rate in each case

Solution(s)

	TAX	Rate		TAX	Rate
a)	2,024.60	20%	f)	142,733.46	34%
b)	6,271.48	22%	g)	479,160.24	43%
c)	16,267.68	26%	h)	1,729,052.74	61%
d)	31,411.60	30%	i)	2,414,622.29	69%
e)	47,907.52	32%	j)	6,313,034.70	70%

Reference(s) Tax Reform Act of 1976 - Sec 2001 (c)

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[illegible]

97 Program Listing I

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS		
001	*LBLA	21 11	Branch routine for various brackets	057	GSBc	23 16 13	100 < i < 150 calculations		
002	DSP2	-63 02		058	6	06			
003	CF0	16 22 00		059	-	-45			
004	EEX	-23		060	GT00	22 00			
005	3	03		061	*LBL7	21 07			
006	=	-24		062	X*Y	-41			
007	ST01	35 01		063	3	03			
008	2	02		064	GSBc	23 16 13			
009	5	05		065	6	06			
010	0	00		066	2	02			
011	ST03	35 03	i < 250	067	-	-45	150 < i < 250 calculations		
012	X>Y?	16-34		068	GT00	22 00			
013	GT00	22 00		069	*LBL6	21 06			
014	2	02		070	X*Y	-41			
015	x	-35		071	3	03			
016	ST02	35 02		072	.	-62			
017	X>Y?	16-34		073	2	02			
018	GT01	22 01		074	GSBc	23 16 13			
019	3	03		075	9	09			
020	x	-35		076	2	02			
021	X>Y?	16-34	250 < i < 500	077	-	-45	250 < i < 500 calculations		
022	GT02	22 02		078	GT00	22 00			
023	3	03		079	*LBL1	21 01			
024	x	-35		080	X*Y	-41			
025	X>Y?	16-34		081	3	03			
026	GT03	22 03		082	.	-62			
027	CLX	-51		083	4	04			
028	5	05		084	GSBc	23 16 13			
029	EEX	-23		085	1	01			
030	3	03		086	4	04			
031	X>Y?	16-34	500 < i < 1500	087	2	02	4500 < i < 5000 calculations		
032	GT04	22 04		088	-	-45			
033	GT05	22 05		089	GT00	22 00			
034	*LBL0	21 00		090	*LBL4	21 04			
035	EEX	-23		091	X*Y	-41			
036	2	02		092	6	06			
037	-	-45		093	.	-62			
038	X<Y?	16-35		094	9	09			
039	GT06	22 06		095	GSBc	23 16 13			
040	CLX	-51		096	8	08			
041	LSTX	16-63	1500 < i < 4500	097	9	09	i > 5000 calculations		
042	X<Y?	16-35		098	9	09			
043	GT07	22 07		099	2	02			
044	CLX	-51		100	-	-45			
045	4	04		101	GT00	22 00			
046	0	00		102	*LBL5	21 05			
047	X<Y?	16-35		103	X*Y	-41			
048	GT08	22 08		104	7	07			
049	2	02		105	GSBc	23 16 13			
050	=	-24		106	9	09			
051	X>Y?	16-34	100 < i < 150	107	4	04	i < 20 calculations		
052	GT09	22 09		108	9	09			
053	X*Y	-41		109	2	02			
054	2	02		110	-	-45			
055	.	-62		111	*LBL0	21 00			
056	2	02		112	EEX	-23			
REGISTERS									
0	1 Taxable Amt / 1000	2 i ₁	3 Δ i	4 R ₁	5 Δ R	6 T ₁	7 N	8	9 R
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	I				

97 Program Listing II

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
113	2	02		169	-	-45	
114	x	-35		170	RCL3	36 03	
115	RTN	24		171	=	-24	
116	*LBL2	21 02	500 < i < 1500	172	INT	16 34	$N = \text{INT}(\frac{i-i_1}{\Delta i})$
117	3	03	set constants	173	ST07	35 07	
118	7	07		174	X2	53	
119	ST04	35 04		175	LSTX	16-63	
120	2	02		176	+	-55	
121	9	09		177	RCL3	36 03	
122	2	02		178	x	-35	$(N^2+N)\Delta i$
123	ST06	35 06		179	F0?	16 23 00	if R=4 multiply by 2
124	GT01	22 01		180	GSB0	23 00	
125	*LBL8	21 08	40 < i < 100	181	RCL7	36 07	
126	2	02	set constants	182	RCL2	36 02	
127	0	00		183	x	-35	
128	ST03	35 03		184	GSB0	23 00	$2 N i_1$
129	GSB0	23 00		185	F0?	16 23 00	if R=4 multiply by 2
130	ST02	35 02		186	GSB0	23 00	
131	2	02		187	+	-55	
132	4	04		188	RCL6	36 06	
133	ST04	35 04		189	1	01	
134	1	01		190	0	00	
135	4	04		191	x	-35	$10 T_1$
136	ST06	35 06		192	+	-55	$D = [\frac{N^2+N}{2} \Delta i R + N i_1 + T_1]$
137	GT01	22 01		193	RCL4	36 04	
138	*LBL9	21 09	i < 20	194	RCL7	36 07	
139	0	00	set constants	195	GSB0	23 00	$2 N$
140	ST02	35 02		196	F0?	16 23 00	if R=4 multiply by 2
141	ST06	35 06		197	GSB0	23 00	
142	1	01		198	+	-55	$R_1 + N \Delta R = R$
143	0	00		199	ST09	35 09	
144	ST03	35 03		200	RCL1	36 01	
145	1	01		201	x	-35	$R i$
146	8	08		202	R↑	16-31	$R i - D$
147	ST04	35 04		203	-	-45	
148	GT01	22 01		204	1	01	
149	*LBL3	21 03	1500 < i < 4500	205	0	00	
150	SF0	16 21 00	set constants	206	x	-35	
151	5	05		207	RTN	24	TAX
152	0	00		208	*LBL0	21 00	
153	0	00		209	2	02	
154	ST03	35 03		210	x	-35	
155	3	03		211	RTN	24	
156	x	-35		212	*LBL8	21 12	
157	ST02	35 02		213	RCL9	36 09	Display Rate
158	4	04		214	DSP0	-63 00	
159	5	05		215	RTN	24	
160	ST04	35 04		216	*LBLc	21 16 13	
161	1	01		217	EEX	-23	Store rate as an integer,
162	1	01		218	3	03	restore original
163	9	09		219	%	55	form, multiply
164	2	02		220	ST09	35 09	and return to
165	ST06	35 06		221	CLX	-51	main program
166	*LBL1	21 01	formula calculation	222	+	-55	
167	RCL1	36 01		223	x	-35	
168	RCL2	36 02		224	RTN	24	

LABELS					FLAGS	SET STATUS		
A RUN	B	C	D	E	0 ΔR=4	FLAGS	TRIG	DISP
a	b	c	d	e	1	ON OFF		
0 i < 20 Used	1 1500 < i < 3000 Tax Calc	2 500 < i < 1500	3 1500 < i < 4500	4 4500 < i < 5000	2	0 ☐ ☒	DEG ☒	FIX ☒
5 i > 5000	6 150 < i < 250	7 100 < i < 150	8 40 < i < 100	9 i < 20	3	1 ☐ ☒	GRAD ☐	SCI ☐
						2 ☐ ☒	RAD ☐	ENG ☐
						3 ☐ ☒		n 2

Program Description I

Program Title *Federal Estate Tax Credit for State Taxes Paid*

Contributor's Name *Howard B. KUTNER, CPA*

Address *370 Lexington Avenue - Rm 909*

City *New York* State *NY* Zip Code *10017*

Program Description, Equations, Variables *This program utilizes a mathematical formula to represent the Federal Table of Estate Tax Credit allowable for State Inheritance Taxes Paid. It enables the user to obtain the maximum allowable credit for a given taxable estate by pressing a single function key. The top bracket rate of credit may then be determined by simply pressing another key*

$$\text{Credit} = (iR - D)10^2 \text{ where:}$$

$$N = \text{INT} \left(\frac{i - i_1}{\Delta i} \right)$$

$$R = (R_1 + N \Delta R)$$

$$D = \left[\left(\frac{N^2 + N}{2} \right) \Delta R \Delta i + N \Delta R i_1 + T_1 \right]$$

$$i = (\text{Taxable Estate} / 100,000) - .4$$

TABLE OF CONSTANTS WITHIN VARIOUS BRACKETS OF i

range of i			R_1	ΔR	i_1	Δi	T_1	D
0	To	1	8	8	0	.5	0	—
1	To	2	24	—	—	—	—	12
2	To	10	32	8	2	2	28	—
10	To	40	64	8	10	5	252	—
40	To	100	112	8	40	10	1572	—
Operating Limits and Warnings over 100			160	—	—	—	—	5172

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)

TABLE FOR COMPUTATION OF MAXIMUM CREDIT
FOR STATE DEATH TAXES

(A) Taxable estate equal to or more than—	(B) Taxable estate less than—	(C) Credit on amount in col- umn (A)	(D) Rates of credit on excess over amount in column (A)
			Percent
\$ 40,000	\$ 90,000	\$ 400	.8
90,000	140,000	1,200	1.6
140,000	240,000	3,600	2.4
240,000	440,000	10,000	3.2
440,000	640,000		4.
640,000	840,000	18,000	4.8
840,000	1,040,000	27,600	5.6
1,040,000	1,540,000	38,800	6.4
1,540,000	2,040,000	70,800	7.2
2,040,000	2,540,000	106,800	8.
2,540,000	3,040,000	146,800	8.8
3,040,000	3,540,000	190,800	9.6
3,540,000	4,040,000	238,800	10.4
4,040,000	5,040,000	290,800	11.2
5,040,000	6,040,000	402,800	12.
6,040,000	7,040,000	522,800	12.8
7,040,000	8,040,000	650,800	13.6
8,040,000	9,040,000	786,800	14.4
9,040,000	10,040,000	930,800	15.2
10,040,000		1,082,800	16.

Sample Problem(s)

Find the maximum credit for State Death Taxes allowable for the following Taxable estates, and the Top bracket rate

- | | |
|------------|---------------|
| a) 30,000 | e) 3,246,871 |
| b) 70,462 | f) 8,651,783 |
| c) 195,586 | g) 12,146,869 |
| d) 762,391 | |

Solution(s)

- | | |
|-----------------|-------|
| a) 0 | 0% |
| b) 243.70 | 0.8% |
| c) 2,534.06 | 2.4% |
| d) 23,874.77 | 4.8% |
| e) 210,659.62 | 9.6% |
| f) 874,896.75 | 14.4% |
| g) 1,419,899.04 | 16.0% |

Reference(s)

97 Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBL 21	16 15		057	.	-62	
002	RCL1	36 01	Calculate	058	5	05	
003	RCL2	36 02	$N = \text{INT}(\frac{i-i_1}{\Delta i})$	059	ST03	35 03	
004	-	-45		060	RCL1	36 01	
005	RCL3	36 03		061	2	02	
006	=	-24		062	X>Y?	16-34	$i < 2$
007	INT	16 34		063	GT00	22 00	
008	ST07	35 07		064	8	08	
009	X2	53		065	+	-55	
010	LSTX	16-63	Calculate	066	X>Y?	16-34	$i < 10$
011	+	-55	$D = [(\frac{N^2+N}{2})AR + NAR_1 + T_1]$	067	GT01	22 01	
012	2	02		068	3	03	
013	=	-24		069	0	00	
014	RCL3	36 03		070	+	-55	
015	x	-35		071	X>Y?	16-34	$i < 40$
016	RCL5	36 05		072	GT02	22 02	
017	x	-35		073	6	06	
018	RCL7	36 07		074	0	00	
019	RCL2	36 02		075	+	-55	
020	x	-35		076	X>Y?	16-34	$i < 100$
021	RCL5	36 05		077	GT03	22 03	
022	x	-35		078	CLX	-51	
023	+	-55		079	1	01	Calculate
024	X2Y	-41		080	6	06	Credit for
025	+	-55		081	0	00	$i > 100$
026	RCL4	36 04	Calculate	082	x	-35	
027	RCL7	36 07	$R = R_1 + NAR$	083	5	05	
028	RCL5	36 05		084	1	01	
029	x	-35		085	7	07	
030	+	-55		086	2	02	
031	ST09	35 09		087	GT04	22 04	
032	RCL1	36 01	Calculate	088	*LBL1	21 01	Store constants
033	x	-35	Credit = $iR - D$	089	4	04	
034	R↑	16-31		090	STx4	35-35 04	
035	-	-45		091	2	02	for $2 < i < 10$
036	EEX	-23		092	ST02	35 02	
037	2	02		093	ST03	35 03	
038	x	-35		094	2	02	
039	RTN	24		095	8	08	
040	*LBLA	21 11	Initiate	096	GT0e	22 16 15	
041	DSP2	-63 02	store Taxable Estate	097	*LBL2	21 02	Store Constants
042	ST00	35 00		098	8	08	for $10 < i < 40$
043	EEX	-23		099	STx4	35-35 04	
044	5	05		100	1	01	
045	=	-24		101	0	00	
046	.	-62		102	ST02	35 02	
047	4	04		103	5	05	
048	-	-45		104	ST03	35 03	
049	ST01	35 01	store i	105	2	02	
050	CLX	-51		106	5	05	
051	ST02	35 02		107	2	02	
052	ST06	35 06	Store Tentative constants	108	GT0e	22 16 15	
053	ST09	35 09		109	*LBL3	21 03	Store Constants
054	8	08		110	1	01	for $40 < i < 100$
055	ST05	35 05		111	4	04	
056	ST04	35 04		112	STx4	35-35 04	

REGISTERS

0 Taxable Estate	1 i	2 i_1	3 Δi	4 R_1	5 AR	6 T_1	7 N	8	9 Rate
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	F	G	H	I	J

STEP			KEY ENTRY	KEY CODE	COMMENTS	STEP			KEY ENTRY	KEY CODE	COMMENTS
113			4	04	Store Constants for $40 \leq i \leq 100$	170					
114			0	00							
115			ST02	35 02							
116			1	01							
117			0	00							
118			ST03	35 03							
119			1	01							
120			5	05							
121			7	07							
122			2	02							
123			GT0e	22 16 15							
124			*LBL0	21 00							
125			1	01	180						
126			-	-45							
127			X>Y?	16-34							
128			GT00	22 00							
129			CLX	-51							
130			2	02							
131			4	04							
132			x	-35							
133			1	01							
134			2	02	190						
135			GT04	22 04							
136			*LBL0	21 00							
137			LSTX	16-63							
138			-	-45							
139			X≤Y?	16-35							
140			GT0e	22 16 15							
141			0	00							
142			ST09	35 09							
143			RTN	24							
144			*LBL4	21 04	200						
145			LSTX	16-63							
146			ST09	35 09							
147			R↓	-31							
148			-	-45							
149			EEX	-23							
150			2	02							
151			x	-35							
152			RTN	24							
153			*LBLB	21 12							
154			DSP1	-63 01	210						
155			RCL9	36 09							
156			.	-62							
157			1	01							
158			x	-35							
159			RTN	24							
160											

Program Description I

Program Title *ESTATE/GIFT TAX PORTFOLIO VALUATION*

Contributor's Name *Howard B. KUTNER, CPA*

Address *370 Lexington Avenue - Rm 909*

City *New York* State *N.Y.* Zip Code *10017*

Program Description, Equations, Variables *This program determines the interpolated price of a security on a date when no quotations are available in accordance with Internal Revenue Service Regulations for Gift and Estate Tax valuations. It accepts High and Low quotes for preceding and following trading dates in any sequence and interpolates according to the number of days in each Time period. The interpolated price is displayed and used To value the quantity of shares held. Values are accumulated to provide a portfolio total*

Protection is provided against more than 2 quotes (High and Low) on each date

A count of correctly processed portfolio items is maintained and displayed after any error correction. It may also be recalled independently. Accumulated Value is not affected by input errors and processing may be resumed following error correction

Quoted prices may be entered in any sequence and if any are similar the figures do not have to be reentered before depressing the Key for the Second entry

Operating Limits and Warnings

Interpolated prices on Valuation Date are displayed To 5 decimal places but retain 10 place accuracy in determining Security Value. Security value is rounded To penny accuracy.

of shares must be entered during 1 second pause for display of calculated price - not while computer is cycling

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)

Sample Problem(s)

a) Preceding Trade date 8/13/76 (Friday)
 b) Valuation date 8/14/76 (Saturday)
 c) Following Trade date 8/16/76 (Monday)

$$n = b - a = 1$$

$$N = c - a = 3$$

		8/13/76		8/16/76	
		LO	HI	LO	HI
100 sh	ABC	3	5	9	11
300 sh	DEF	7	8	6	6 1/2
500 sh	GHI	13	13 1/4	14 1/8	15

Solution(s)

		Valuation price	Value
100 sh	ABC	6.00000	600.00
300 sh	DEF	7.08333	2,125.00
500 sh	GHI	13.60417	6,802.08
TOTAL			<u>9,527.08</u>

Keystroke "D" → # of items

3

Reference(s)

Internal Revenue Code and Regulations 20.2031-2(b)
 relating to Estate Tax
 and Regulations 25.2512-2(b)
 relating to Gift Tax

User Instructions

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ESTATE/GIFT TAX - PORTFOLIO VALUATION

n ↑
 N - initiate
 (FE)
 Accumulated
 Total (E)

Price Quotes
 date 1 date 2

Print Mode
 1 = Print
 0 = Suppress

Correct error

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1	ENTER PROGRAM			
2	a) Enter days from last quote to Valuation date	n	ENTER	
	b) Enter days between quotes (Total Span)	N	f e	0.00
3	<u>OPTIONAL</u> : Select Print Mode			
	a) To Print		C	1.00
	b) To Suppress Print		C c	0.00
	<u>Note</u> : Print mode may be changed at any time			
4	a) Enter early quote <u>OR</u>	a	A	a
	a) Enter later quote	b	B	b
	(for ERROR - see below) *			
	b) Repeat Step 4a) 4 times			
	(2 quotes for each date)			
	<u>Note</u> : if a quote is valid for more than one entry Key A or B may be pressed without re-entry of amount already in display			
	c) After 4 th quote entry	No Input		price
	d) When flashing Price appears	# shares	NONE	Value
5	To Continue Go To Step 4			
	<u>OR</u>			
5	To Display Accumulated Total		E	Accum Total
	Go To Step 4 To Continue			
	<u>OR</u>			
5	For New Case Go To Step 2			
6	<u>OPTIONAL</u> - To determine last valid item #		D	last valid item #
*	<u>ERROR INDICATION</u>			
	(more than 2 quote entries on any date)			
	TO CORRECT ERROR		D D	last valid item #
	Go To Step 4			

User Instructions



STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1	ENTER PROGRAM			
2	a) enter n = days from last quote to valuation	1	ENTER	1.00
	b) enter N = days between quote dates	3	f e	0.00
3	Select Print Mode		C	1.00
4	a) Enter early quote	3	A	3.00
	a) ✓ ✓ ✓	5	A	5.00
	b) ✓ later ✓	9	B	9.00
	b) ✓ ✓ ✓	11	B	6.00000
	d) Enter # of shares	100		600.00
4	a) Enter Early quote	7	A	7.00
	a) ✓ ✓ ✓	8	A	8.00
	b) ✓ later ✓	6	B	6.00
	b) ✓ ✓ ✓	6.5	B	7.08333
	d) Enter # of shares	300		2125.00
4	a) Enter Early quote	13	A	13.00
	a) ✓ ✓ ✓	13.25	A	13.25
	b) ✓ later ✓	14.125	B	14.13
	b) ✓ ✓ ✓	15	B	13.60417
	d) Enter # of shares	500		6802.08
5	Display Accumulated Total		E	9527.08
6	Display last valid item #		D	3.00
		. ***		
		100. ***		
		6.00000 ***		
		600.00 ***		
		2. ***		
		300. ***		
		7.08333 ***		
		2125.00 ***		
		3. ***		
		500. ***		
		13.60417 ***		
		6802.08 ***		
		9527.08 ***		

97 Program Listing I

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STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	*LBL3	21 03		057	*LBL0	21 00	
002	ST09	35 09		058	R↓	-31	
003	GSBD	23 14		059	RTN	24	
004	RCL8	36 08		060	*LBLD	21 14	
005	RCL9	36 09		061	4	04	
006	DSP2	-63 02		062	ST01	35 46	
007	x	-35		063	3	03	
008	RND	16 24		064	ST04	35 04	
009	ST+3	35-55 03		065	ST05	35 05	
010	1	01		066	CLX	-51	
011	ST+6	35-55 06		067	ST01	35 01	
012	R↓	-31		068	ST02	35 02	
013	F0?	16 23 00		069	RCL6	36 06	
014	GT04	22 04		070	RTN	24	
015	RTN	24		071	*LBLc	21 16 15	
016	*LBLA	21 11		072	=	-24	
017	ST+1	35-55 01		073	ST07	35 07	
018	RCL4	36 04		074	GSBD	23 14	
019	1	01		075	0	00	
020	-	-45		076	ST06	35 06	
021	ST04	35 04		077	ST03	35 03	
022	GT01	22 01		078	RTN	24	
023	*LBLB	21 12		079	*LBLc	21 15	
024	ST+2	35-55 02		080	RCL3	36 03	
025	RCL5	36 05		081	F0?	16 23 00	
026	1	01		082	GT00	22 00	
027	-	-45		083	RTN	24	
028	ST05	35 05		084	*LBL0	21 00	
029	*LBL1	21 01		085	PRTX	-14	
030	.0	00		086	SPC	16-11	
031	X=Y?	16-33		087	SPC	16-11	
032	=	-24		088	RTN	24	
033	R↓	-31		089	*LBL4	21 04	
034	DSZI	16 25 46		090	DSP0	-63 00	
035	GT00	22 00		091	RCL6	36 06	
036	RCL2	36 02		092	PRTX	-14	
037	RCL1	36 01		093	RCL9	36 05	
038	-	-45		094	PRTX	-14	
039	RCL7	36 07		095	DSP5	-63 05	
040	x	-35		096	RCL8	36 08	
041	RCL1	36 01		097	PRTX	-14	
042	+	-55		098	DSP2	-63 02	
043	2	02		099	R↑	16-31	
044	=	-24		100	PRTX	-14	
045	3	03		101	SPC	16-11	
046	CHS	-22		102	RTN	24	
047	ST01	35 46		103	*LBLC	21 13	
048	CLX	-51		104	SF0	16 21 00	
049	+	-55		105	1	01	
050	DSP5	-63 05		106	RTN	24	
051	ST08	35 08		107	*LBLC	21 13	
052	CF3	16 22 03		108	CF0	16 22 00	
053	PSE	16 51		109	0	00	
054	F3?	16 23 03		110	RTN	24	
055	GT03	22 03					
056	GT01	22 45					

REGISTERS

0	1 early quotes	2 later quotes	3 Accum Total Value	4 entry counter	5 entry counter	6 item counter	7 n/N	8 Price	9 # Shares
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A	B	C	D	E	1 Entry Counter				

[illegible]

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Chemistry
Optics
Physics
Earth Sciences
Energy Conservation
Space Science
Biology
Games
Games of Chance
Aircraft Operation
Aviation
Calendars
Photo Dark Room
COGO-Surveying
Astrology
Forestry

TAXES

This book contains tax calculation programs of interest to professional tax practitioners and individuals wishing fast error-free federal tax calculations for regular 1040, Schedules A (medical and dental), G (income averaging) and D (capital gains), Form 4726 (maximum tax) and Estates and Trusts.

TAX PLANNING 1

FEDERAL INCOME TAX - SINGLE, TAX TABLE A

FEDERAL INCOME TAX - JOINT OR SEPARATE, TAX TABLES B&C

**FEDERAL INCOME TAX - SINGLE (UNMARRIED) TAXPAYERS
(SCHEDULE X)**

FEDERAL INCOME TAX - JOINT OR SEPARATE (SCHEDULE Y)

SCHEDULE TC TAX COMPUTATION SCHEDULE FORM 1040

TAX DEDUCTION SCHEDULE A FORM 1040 MEDICAL AND DENTAL

MAXIMUM TAX ON EARNED INCOME - 1977 AND AFTER

INCOME AVERAGING TAX

FEDERAL ESTATE/GIFT TAX - 1977 AND LATER

FEDERAL ESTATE TAX CREDIT FOR STATE TAXES PAID

ESTATE/GIFT TAX PORTFOLIO VALUATION

1977

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