

# ACTUARIAL NOTE

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## A PROGRAM IN BASIC FOR COMPUTING PRIMARY INSURANCE AMOUNTS

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Office of the Actuary

The Office of the Actuary calculates many Primary Insurance Amounts (PIA's) in the projection of Old-Age, Survivors, and Disability Insurance (OASDI) average benefits for short-range and long-range estimates, and for other purposes. Various notes and studies have described the PIA calculation methods (see *Actuarial Note No. 100: Computing a Social Security Benefit After the 1977 Amendments*, by Steven F. McKay; *Actuarial Note No. 111: Computing a Social Security Benefit After the 1980 and 1981 Amendments*, by Steven F. McKay; and *Actuarial Study No. 86: Effects of the Various Social Security Benefit Computation Procedures*, by Steven F. McKay and Bruce D. Schobel). In addition, a computer program which implemented the language of Actuarial Note No. 111, written in FORTRAN, was published as *Actuarial Note No. 116: A FORTRAN Program for Computing Primary Insurance Amounts*, by Steven F. McKay.

The FORTRAN program in Actuarial Note No. 116 was very similar to the one used by the Office of the Actuary for its calculations, but it had several limitations as a program for general use: (1) many potential users did not have access to a FORTRAN compiler, (2) the program was written as a subroutine, so that some additional programming would be necessary before it could be used, and (3) the program was not available on convenient media such as tape, disc, or punch cards. We have attempted to overcome these limitations with the program presented in this note.

With the growing availability of microcomputers with BASIC interpreters, a program written in BASIC should be convenient for many users. The BASIC program in this note is written as a complete program which produces the PIA for one case per run. In the interest of maximizing portability, the version of BASIC used is the one normally available on the IBM® PC and IBM-compatible equipment; in addition, use of machine-dependent features has been kept to a minimum.

The format of the output has been designed by the authors, but it could be easily changed to fit any specific needs. The user is guided through the required input

steps by prompting messages, although a basic level of understanding of the OASDI program is assumed.

The program calculates the amounts required to compute a PIA, including the numbers of elapsed years and computation years, and the average monthly earnings (AME) or averaged indexed monthly earnings (AIME). Although the old-start PIA is not included because of memory limitations, the other methods are included (the special-minimum PIA, the table PIA, the transitional PIA, the wage-indexed PIA, and the widow's re-indexed PIA), as are the corresponding Maximum Family Benefit (MFB) amounts. The PIA can be computed for most cases of retirement, disability, or death, whether past or present. Future benefits can be projected by specifying certain assumptions as to future average wage and CPI increases and future earnings bases.

All of the provisions of the 1983 Amendments that affect PIA calculations have been incorporated in this program: (1) the widow's re-indexed PIA, (2) the shift of cost-of-living increases from June to December, (3) the benefit increase stabilizer and catch-up provisions, (4) the noncovered pension offset, (5) the increased delayed retirement credit, and (6) the increased normal retirement age.

This program is not the same one that is used in the actual benefit operations of the Social Security Administration; there may be differences between the results produced by this program and a similar calculation performed for an actual benefit determination. For most purposes this program should be sufficiently accurate.

The program in this note is available on a floppy diskette formatted to be readable by an IBM® PC or compatible machine. Diskettes may be ordered by sending a blank 5¼-inch floppy diskette with packing material (cardboard mailer or similar container) to the authors at Room 4-N-29 Link, Social Security Administration, Baltimore, Maryland 21235. Diskettes will be formatted double-sided, double-density; if you require another format, you should format the diskette before mailing it and specify that it is already formatted.

## PIA Calculation Program

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10 CLS
12 PRINT "*****"
14 PRINT "*"
16 PRINT "Social Security PIA Calculation Program, vers. 1985.1"
18 PRINT "*"
20 PRINT "This program calculates the Primary Insurance Amount"
22 PRINT "(PIA) and Maximum Family Benefit (MFB) for most"
24 PRINT "cases of Social Security benefits. The following"
26 PRINT "items are specifically considered:"
28 PRINT "    1. old-age, survivors, or disability benefits."
30 PRINT "    2. all PIA calculations (except as noted below)."
34 PRINT "    3. all amendments to the law through 1984."
36 PRINT "    4. projected benefits through 2050."
37 PRINT "The following are some of the limitations:"
38 PRINT "    1. The Old-Start calculation is not considered."
39 PRINT "    2. Some approximations made for pre-1965 benefits."
41 PRINT "    3. Periods of disability freeze are not considered."
42 PRINT "    4. Any applicable insured status requirement is"
43 PRINT "assumed to be met."
45 PRINT "This program is not copyrighted. Distribution is"
46 PRINT "encouraged, with acknowledgment to the Social"
47 PRINT "Security Administration, Office of the Actuary."
48 PRINT "(press RETURN to continue)"
49 PRINT "*****"
50 INPUT "C$: CLS"
52 PRINT "*****"
53 PRINT "*"
54 PRINT "Running the Program"
56 PRINT "*"
58 PRINT "This program is executed by answering the prompts"
59 PRINT "which appear on the next screen. Each prompt should"
60 PRINT "be answered with the requested data and then the"
61 PRINT "RETURN key. If more than one number is in a single"
62 PRINT "response, the numbers should be separated by commas."
63 PRINT "Months should be entered as numbers (1-12). Years"
64 PRINT "may be entered as 4 digits, or as the last 2 digits"
65 PRINT "only if in the 1900's."
66 PRINT "*"
67 PRINT "Two summary pages are printed with the results (turn"
68 PRINT "the printer on before starting). All print lines"
69 PRINT "are less than 80 characters. If desired, additional"
71 PRINT "detailed pages of output may be specified."
72 PRINT "*"
74 PRINT "Press CNTRL-BREAK at any time to stop the program."
76 PRINT "*"
78 PRINT "(press RETURN to continue)"
80 PRINT "*"
82 PRINT "*****"
100 INPUT C$: PRINT "Initializing variables"
105 OPTION BASE 1
110 DEFINT A,G,I,K,N,P,S,T,U: DEFDBL B
115 N2=49: N4=34: N5=114: N6=N2-2: N7=N5-14
120 DIM A(2,6),B(6,N5),C(2,N5-14),D(9,6),E(4,N5),F(10,8),G(6,N5)
125 DIM H(3,6),L(6,N5),M(4,10,8),O(65)
130 DIM Q(12,4),T(8,3),V(4,6),W(4,N5-14),Y(4,N5-14),D$(12)
135 A$(1)="Male": A$(2)="Female"
140 DATA "1952","1954","1958","1965","1967","1969","1971","1972"
145 DATA "1973","1974"
150 FOR I1=1 TO 10: READ G$(I1): NEXT I1
155 DATA "January","February","March","April","May","June","July"
160 DATA "August","September","October","November","December"
165 FOR I1=1 TO 12: READ D$(I1): NEXT I1
170 DATA "I","II-B","III","II-A"
175 FOR I1=1 TO 4: READ E$(I1): NEXT I1
180 F$(1)="Old-Start Calculation"

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185 F$(2)="New-Start Calculation (pre-1977 Act)"
190 F$(3)="Wage-Indexed Formula (1977 Act)"
195 F$(4)="Transitional Guarantee (1977 Act)"
200 F$(5)="Special Minimum"
205 F$(6)="Re-Indexed Widow (1983 Act)"
210 REM Actual benefit increases through 1984
215 DATA 8.0,6.4,5.9,6.5,9.9,14.3,11.2,7.4,3.5,3.5
220 FOR K2=25 TO N4: READ C(2,K2): NEXT K2
225 DATA 1137.96,1053.24,1142.36,1195.00,1276.04,1454.28,1713.52
230 DATA 1936.32,2021.40,1891.76,2175.32,2361.64,2483.20,2543.96
235 FOR I1=1 TO 14: READ B(5,I1): NEXT I1
240 REM Actual maximum earnings through 1985
245 DATA 3000.,3000.,3000.,3000.,3000.,3000.,3000.,3000.,3000.
250 DATA 3000.,3000.,3000.,3000.,3600.,3600.,3600.,3600.,4200.,4200.
255 DATA 4200.,4200.,4800.,4800.,4800.,4800.,4800.,4800.,4800.
260 DATA 6600.,6600.,7800.,7800.,7800.,7800.,9000.,10800.,13200.
265 DATA 14100.,15300.,16500.,17700.,22900.,25900.,29700.,32400.
270 DATA 35700.,37800.,39600.
275 FOR K3=1 TO N2: READ B(1,K3): NEXT K3
280 REM Actual minimum wages through 1985
285 DATA 520.,520.,537.33,624.,624.,624.,624.,624.,658.67
290 DATA 832.,832.,832.,832.,1499.33,1560.,1560.,1560.,1560.
295 DATA 1560.,1993.,2080.,2080.,2080.,2080.,2184.,2392.,2461.
300 DATA 2600.,2600.,2600.,2886.,3293.,3328.,3328.,3328.,3328.,3328.
305 DATA 3883.,4368.,4784.,4784.,5512.,6032.,6448.,6968.,6968.
310 DATA 6968.,6968.,6968.
315 FOR K1=1 TO N2: READ E(2,K1): NEXT K1
320 REM Actual average earnings through 1983
325 DATA 2799.16,2973.32,3139.44,3155.64,3301.44,3532.36,3641.72
330 DATA 3673.80,3855.80,4007.12,4086.76,4291.40,4396.64,4576.32
335 DATA 4658.72,4938.36,5213.44,5571.76,5893.76,6186.24,6497.08
340 DATA 7133.80,7580.16,8030.76,8630.92,9226.48,9779.44,10556.03
345 DATA 11479.46,12513.46,13773.10,14531.34,15239.24
350 FOR K4=15 TO N6: READ B(5,K4): NEXT K4
355 REM Projected benefit increases, 1985 Trustees Report
360 DATA .0,6.7,3.6,3.5,3.1,.0,5.0,.0,4.0,.0
365 FOR K2=N4+1 TO 44: READ Y(1,K2): NEXT K2
370 FOR K2=45 TO N7: LET Y(1,K2)=2!: NEXT K2
375 DATA 3.7,5.0,5.3,5.0,4.6,4.1
380 FOR K2=N4+1 TO 40: READ Y(2,K2): NEXT K2
385 FOR K2=41 TO N7: LET Y(2,K2)=4!: NEXT K2
390 DATA 4.8,6.1,4.9,5.5,6.0,4.5,4.9
395 FOR K2=N4+1 TO 41: READ Y(3,K2): NEXT K2
400 FOR K2=42 TO N7: LET Y(3,K2)=5!: NEXT K2
405 DATA 3.4,4.2,4.1,4.0,3.6,3.1
410 FOR K2=N4+1 TO 40: READ Y(4,K2): NEXT K2
415 FOR K2=41 TO N7: LET Y(4,K2)=3!: NEXT K2
420 REM Projected catchup benefit increases, 1985 Trustees Report
425 FOR K2=1 TO 8: FOR K3=1 TO 10
430 M(1,K3,K2)=0!: M(2,K3,K2)=0!: M(4,K3,K2)=0!
435 NEXT K3: NEXT K2
440 DATA 0,0,0,0,0,0,0,9,0,0,0,0,0,0,9,0,0,0,0,0,0,9
445 DATA 0,0,0,0,0,0,0,9,0,0,0,0,0,0,9,0,0,0,0,0,0,0,0,0,0
450 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
455 FOR K2=1 TO 10: FOR K3=1 TO 8
460 READ M(3,K2,K3)
465 NEXT K3: NEXT K2
470 REM Projected average wage increases, 1985 Trustees Report
475 DATA 5.413262,3.638032,5.143075,5.479110,5.367863
480 DATA 5.565282,4.852806,4.343269,4.264841,4.302062,4.431297
485 FOR K2=N6-13 TO N6-3: READ W(1,K2): NEXT K2
490 DATA 4.943554,3.769118,5.399274,6.285371,6.046697
495 DATA 6.223808,5.695551,5.428350,5.642418,5.618627,5.603507
500 FOR K2=N6-13 TO N6-3: READ W(2,K2): NEXT K2
505 DATA 4.454815,3.195478,4.345039,6.909121,5.133647
510 DATA 4.743604,7.197984,6.031737,6.415485,6.309194,6.179362

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515 FOR K2=N6-13 TO N6-3: READ W(3,K2): NEXT K2
520 DATA 5.196060,3.815651,5.404269,5.626378,5.496627
525 DATA 5.589467,5.041310,4.759739,4.931589,4.922909,4.901718
530 FOR K2=N6-13 TO N6-3: READ W(4,K2): NEXT K2
535 FOR K3=N6-2 TO N7
540 W(1,K3)=4.5: W(2,K3)=5.5: W(3,K3)=6!: W(4,K3)=5!
545 NEXT K3
550 REM Actual old-law maximum earnings through 1985
555 DATA 3000.,3000.,3000.,3000.,3000.,3000.,3000.,3000.,3000.
560 DATA 3000.,3000.,3000.,3000.,3000.,3600.,3600.,3600.,3600.
565 DATA 4200.,4200.,4200.,4200.,4800.,4800.,4800.,4800.,4800.
570 DATA 4800.,4800.,6600.,6600.,7800.,7800.,7800.,7800.,9000.
575 DATA 10800.,13200.,14100.,15300.,16500.,17700.,18900.,20400.
580 DATA 22200.,24300.,26700.,28200.,29700.00
585 FOR K4=1 TO N2: READ B(4,K4): NEXT K4
1000 REM Start main program
1005 CLS: INPUT "Enter sex-of-worker code (1=male, 2=female)> ",A6
1010 IF A6<1 OR A6>2 THEN GOTO 1005
1015 INPUT "Enter date of entitlement (month,year)> ",T(2,1),T(2,2)
1020 IF T(2,2)<100 THEN T(2,2)=1900+T(2,2)
1025 IF T(2,1)<1 OR T(2,1)>12 THEN 1015
1030 IF T(2,2)<1940 OR T(2,2)>1936+N5 THEN 1015
1035 INPUT "Enter date of birth (month,day,year)> ",T(5,1),T(5,2),T(5,3)
1040 IF T(5,1)<1 OR T(5,1)>12 THEN 1035
1045 IF T(5,2)<1 OR T(5,2)>31 THEN 1035
1050 IF T(5,3)<100 THEN T(5,3)=1900+T(5,3)
1055 INPUT "Enter type of benefit (0=old age, 1=survivor, 2=disab)> ",A5
1060 IF A5<0 OR A5>2 THEN GOTO 1055
1065 PRINT "Enter type of earnings (0 to enter year-by-year earnings,"
1070 PRINT " 1 for maximum earnings, 2 for average earnings,"
1075 INPUT " 3 for 2080 hours at Federal minimum wage)> ",A3
1080 IF A3<0 OR A3>3 THEN GOTO 1065
1085 INPUT "Enter first year for which there are earnings> ",G1
1090 IF G1<100 THEN G1=1900+G1
1095 IF G1>1936+N5 OR G1<1937 THEN 1085
1100 INPUT "Enter last year for which there are earnings> ",G2
1105 IF G2<100 THEN G2=1900+G2
1110 IF G2>1936+N5 OR G2<G1 THEN GOTO 1100
1115 T(1,1)=T(2,2)-T(5,3): T(1,2)=T(2,1)-T(5,1)
1120 IF T(5,2)=1 THEN T(1,2)=T(1,2)+1
1125 IF T(1,2)<0 THEN T(1,1)=T(1,1)-1: T(1,2)=T(1,2)+12
1130 IF T(1,2)>11 THEN T(1,1)=T(1,1)+1: T(1,2)=T(1,2)-12
1135 IF T(2,2)>1951+N4 OR (T(2,2)=1951+N4 AND T(2,1)=12) THEN 1150
1140 IF T(2,2)>=1950+N4 AND A3=2 THEN 1150
1145 GOTO 1200
1150 PRINT "Enter economic assumptions:"
1155 PRINT " 0 = flat assumptions beginning with Dec";1951+N4;"ben inc"
1160 PRINT " 1 = Trustees Report alternative I"
1165 PRINT " 2 = Trustees Report alternative II-B"
1170 PRINT " 3 = Trustees Report alternative III"
1175 PRINT " 4 = Trustees Report alternative II-A"
1180 INPUT " 5 = other assumptions (to be read in)> ",A1
1185 PRINT "Enter wage base change indicator (0 to follow automatic"
1190 INPUT " provisions, 1 to enter ad hoc wage bases)> ",A2
1195 IF A2<0 OR A2>1 THEN 1185
1200 IF A5<=0 THEN 1235
1205 INPUT "Enter date of death or disability (mo,yr)> ",T(3,1),T(3,2)
1210 IF T(3,2)<100 THEN T(3,2)=1900+T(3,2)
1215 IF T(3,1)<1 OR T(3,1)>12 THEN 1205
1220 IF T(3,2)<1940 OR T(3,2)>1936+N5 THEN 1205
1225 IF T(3,2)<T(2,2) OR (T(3,2)=T(2,2) AND T(3,1)<=T(2,1)) THEN 1235
1230 PRINT "Death or disability must precede entitlement": GOTO 9900
1235 IF A5<>1 OR T(2,2)<1985 THEN 1250
1240 PRINT "Enter type of survivor claim (0=young survivor,"
1245 INPUT " 1=disabled widow, 2=aged widow)> ",A4
1250 IF A5>0 OR T(2,2)<1986 THEN 1260

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1255 INPUT "Enter amount of monthly noncovered pension (0 if none)> ",F6
1260 IF A4<=0 THEN 1290
1265 INPUT "Enter widow date of birth (mo,day,yr)> ",T(4,1),T(4,2),T(4,3)
1270 T(8,1)=T(2,2)-T(4,3): T(8,2)=T(2,1)-T(4,1)
1275 IF T(4,2)=1 THEN T(8,2)=T(8,2)+1
1280 IF T(8,2)<0 THEN T(8,1)=T(8,1)-1: T(8,2)=T(8,2)+12
1285 IF T(8,2)>11 THEN T(8,1)=T(8,1)+1: T(8,2)=T(8,2)-12
1290 PRINT "Computing year of eligibility": GOSUB 8800
1295 G4=A7-N4+1: IF G4<1 THEN G4=1
1300 IF G4>10 THEN G4=10
1305 GOSUB 8300
1310 IF A1<5 THEN 1320
1315 PRINT "Enter title of economic assumptions> ": INPUT B$
1320 IF A2=0 THEN 1340
1325 FOR K1=1 TO T(2,2)-1936-N2
1330 PRINT "Enter wage base for";1936+N2+K1: INPUT B(1,N2+K1)
1335 NEXT K1
1340 IF A3>0 THEN 1365
1345 FOR K2=G1 TO G2
1350 PRINT "Enter worker earnings for";K2
1355 INPUT O(K2-G1+1)
1360 NEXT K2
1365 PRINT "Initializing variables"
1370 FOR K1=1 TO N5: E(1,K1)=1936+K1: NEXT K1
1375 FOR K1=N2+1 TO N5
1380 E(2,K1)=E(2,K1-1)*(B(6,K1)/100!+1!): NEXT K1
1385 IF T(2,2)>1936+N2 THEN GOSUB 8600
1390 IF A3=0 THEN 1420
1395 FOR K1=G1 TO G2
1400 IF A3=1 THEN O(K1-G1+1)=B(1,K1-1936)
1405 IF A3=2 THEN O(K1-G1+1)=B(5,K1-1936)
1410 IF A3=3 THEN O(K1-G1+1)=E(2,K1-1936)
1415 NEXT K1
1420 GOSUB 9000
1425 GOSUB 4000
1430 FOR K3=1 TO 6: IF A(1,K3)=2 THEN V8=K3
1435 NEXT K3
1440 V6=D(1,V8): X1=D(8,V8)
1445 G3=T(2,2)-1951: IF T(2,1)>=6 THEN G3=G3+1
1450 C9=C5*V6: GOSUB 8200: X2=C9
1455 IF T(2,2)>1982 OR T(2,2)=1982 AND T(2,1)>=6 THEN X2=INT(X2)
1460 REM Print out results
1465 LPRINT TAB(20),"Summary of Results": LPRINT ""
1470 I1=T(5,1): LPRINT A$(A6);" born on ";D$(I1);T(5,2);T(5,3)
1475 IF A5<>0 THEN 1505
1480 I1=T(2,1): LPRINT "Retired in ";D$(I1);T(2,2);"at age";
1485 LPRINT T(1,1);"and";T(1,2);"months"
1490 LPRINT "Normal retirement age =";T(6,1);"and";T(6,2);"months"
1495 IF T(7,1)=0 THEN GOTO 1505
1500 LPRINT "Early retirement age =";T(7,1);"and";T(7,2);"months"
1505 IF A5<>1 THEN 1520
1510 I1=T(3,1): LPRINT "Died in ";D$(I1);T(3,2)
1515 I1=T(2,1): LPRINT "Benefits started in ";D$(I1);T(2,2)
1520 IF A5<>2 THEN 1540
1525 I1=T(3,1): LPRINT "Disabled in ";D$(I1);T(3,2)
1530 I1=T(2,1): LPRINT "Benefits started in ";D$(I1);T(2,2);
1535 LPRINT "at age";T(1,1);"and";T(1,2);"months"
1540 LPRINT ""
1545 FOR K3=1 TO 6
1550 LPRINT F$(K3)
1555 IF A(1,K3)>=1 THEN LPRINT USING " PIA:#####.###"; D(1,K3)
1560 IF A(1,K3)>=1 THEN LPRINT USING " MFB:#####.###"; D(8,K3)
1565 IF A(1,K3)=0 THEN LPRINT " Not applicable"
1570 LPRINT ""
1575 NEXT K3
1580 FOR K4=1 TO 4: LPRINT "": NEXT K4

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1585 LPRINT USING "Actual PIA = $$$#.##";V6
1590 IF C5 >= 1! THEN LPRINT "Number of months of increment =";C3
1595 IF C5 < 1! THEN LPRINT "Number of months of reduction =";C3
1600 IF C5 >= 1! THEN LPRINT USING "Delayed increment factor =#.#####";C5
1605 IF C5 < 1! THEN LPRINT USING "Actuarial reduction fact =#.#####";C5
1610 LPRINT USING "Benefit actually payable = $$$#.##";X2
1615 LPRINT USING "MFB actually payable = $$$#.##";X1
1620 FOR K3=1 TO 6: LPRINT " ": NEXT K3
1625 IF T(2,2) < 1951 + N4 OR T(2,2) = 1951 + N4 AND T(2,1) < 12 THEN 1650
1630 LPRINT "Economic assumptions:"
1635 IF A1 >= 1 AND A1 <= 4 THEN LPRINT "Trustees Report alt";E$(A1)
1640 IF A1 = 0 THEN LPRINT "Flat beginning December";1951 + N4
1645 IF A1 >= 5 THEN LPRINT B$
1650 LPRINT CHR$(12)
1655 LPRINT TAB(5);"Earnings Used in PIA Calculation": LPRINT ""
1660 LPRINT TAB(5);"year";TAB(17);"earnings": LPRINT ""
1665 FOR K3=G1 TO G2
1670 IF O(K3-G1+1)=0 THEN 1680
1675 LPRINT USING "#####.##"; E(1,K3-1936),O(K3-G1+1)
1680 NEXT K3
1685 LPRINT CHR$(12)
1690 INPUT "Do you want additional detailed output? (y or n) >";C$
1695 IF C$ <> "Y" AND C$ <> "y" THEN GOTO 9210
1700 IF A(1,2)=0 THEN 1855
1705 LPRINT TAB(10);F$(2): LPRINT ""
1710 LPRINT TAB(25);"high N"
1715 LPRINT "year earnings years": LPRINT ""
1720 I2=P6+1950
1725 FOR K3=G1 TO I2
1730 IF K3 <= 1950 THEN 1755
1735 LPRINT USING "#####.##"; E(1,K3-1936),O(K3-G1+1);
1740 IF G(2,K3-1950) > 0 THEN 1750
1745 LPRINT "": GOTO 1755
1750 LPRINT USING "#####.##";L(2,K3-1950)
1755 NEXT K3
1760 LPRINT CHR$(12)
1765 LPRINT TAB(10);F$(2): LPRINT ""
1770 LPRINT "N = ";A9;" ";A8;" = ";N1: LPRINT ""
1775 LPRINT USING "AME =#####.##";D(9,2);
1780 LPRINT USING "/(##*12) =#####";N1,D(5,2): LPRINT ""
1785 LPRINT "Applicable table: ";G$(P4): LPRINT ""
1790 IF A(2,2) <= 0 THEN 1840
1795 LPRINT "CPI increases applied: "
1800 FOR K4=25 TO A(2,2)+24
1805 GOSUB 5900
1830 NEXT K4
1835 LPRINT ""
1840 LPRINT USING "PIA at entitlement = $$$#.##";D(1,2): LPRINT ""
1845 LPRINT USING "MFB at entitlement = $$$#.##";D(8,2)
1850 LPRINT CHR$(12)
1855 IF A(1,3)=0 THEN 2285
1860 LPRINT TAB(10);F$(3): LPRINT ""
1865 LPRINT TAB(28);"earnings";TAB(44);"indexed high N"
1870 LPRINT "year earnings *";
1875 LPRINT USING "#####.## earnings years"; B(5,A7-1+14)
1880 LPRINT ""
1885 I2=P6+1950
1890 FOR K3=G1 TO I2
1895 IF K3 <= 1950 THEN 1985
1900 LPRINT USING "#####.##";E(1,K3-1936),O(K3-G1+1);
1905 IF G(3,K3-1950) > 0 THEN 1945
1910 IF K3 > A7 + 1949 THEN 1930
1915 LPRINT USING "#####.##"; B(2,K3-1950);
1920 LPRINT USING "#####.##"; L(3,K3-1950)
1925 GOTO 1985
1930 LPRINT TAB(38);: LPRINT USING "#####.##"; L(3,K3-1950)

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1940 GOTO 1985
1945 IF K3>A7+1949 THEN 1970
1950 LPRINT USING "#####.##"; B(2,K3-1950);
1955 LPRINT USING "#####.##"; L(3,K3-1950);
1960 LPRINT USING "#####.##"; L(3,K3-1950)
1965 GOTO 1985
1970 LPRINT TAB(38); LPRINT USING "#####.##"; L(3,K3-1950);
1980 LPRINT USING "#####.##"; L(3,K3-1950)
1985 NEXT K3
1990 LPRINT CHR$(12)
1995 LPRINT TAB(15);F$(3): LPRINT ""
2000 LPRINT "N=";A9;"-";A8;"=";N1: LPRINT ""
2005 LPRINT USING "AIME =#####.##";D(9,3);
2010 LPRINT USING "/(##*12) =#####";N1,D(5,3): LPRINT ""
2015 LPRINT "PIA bend points = ";Q(8,2);" and ";Q(8,3): LPRINT ""
2020 LPRINT "MFB bend points = ";Q(7,2);Q(7,3);" and ";Q(7,4): LPRINT ""
2025 LPRINT "PIA at eligibility ="
2030 LPRINT USING "#.## * ##### +"; Q(2,1),H(1,3)
2035 LPRINT USING "#.## * ##### +"; Q(2,2),H(2,3)
2040 IF P1>0 THEN 2055
2045 LPRINT USING "#.## * ##### = #####.##"; Q(2,3),H(3,3),D(2,3)
2050 GOTO 2060
2055 LPRINT USING "#.## * ##### = #####.##"; Q(2,3),H(3,3),Q(11,3)
2060 IF P1=0 THEN GOTO 2130
2065 LPRINT "": LPRINT USING "Noncovered pension = #####.##";F6
2070 LPRINT ""
2075 IF P1>0 THEN GOTO 2095
2080 LPRINT "Special minimum savings clause:"
2085 LPRINT USING "## years of coverage";G6
2090 GOTO 2130
2095 LPRINT "PIA after windfall"
2100 IF P1=1 THEN 2125
2105 LPRINT USING "#.## * ##### +";Q(4,1),H(1,3)
2110 LPRINT USING "#.## * ##### +";Q(4,2),H(2,3)
2115 LPRINT USING "#.## * ##### = #####.##";Q(4,3),H(3,3),D(2,3)
2120 GOTO 2130
2125 LPRINT USING "#####.## - .5* #####.## = #####.##";Q(11,3),F6,D(2,3)
2130 LPRINT ""
2135 LPRINT "MFB at eligibility ="
2140 IF P2=0 THEN 2195
2145 IF P2=1 THEN 2160
2150 IF P2=2 THEN 2170
2155 IF P2=3 THEN 2180
2160 LPRINT V7;"* ";D(2,3)
2165 GOTO 2185
2170 LPRINT V7;"* ";D(5,3)
2175 GOTO 2180
2180 LPRINT V7;"* ";D(2,3)
2185 LPRINT "(MFB cap on DI cases) = ";D(4,3)
2190 GOTO 2220
2195 LPRINT USING "#.## * #####.## +"; Q(1,1),V(1,3)
2200 LPRINT USING "#.## * #####.## +"; Q(1,2),V(2,3)
2205 LPRINT USING "#.## * #####.## +"; Q(1,3),V(3,3)
2210 LPRINT USING "#.## * #####.## = #####.##"; Q(1,4),V(4,3),D(4,3)
2215 LPRINT ""
2220 IF A(2,3)<=0 THEN 2270
2225 LPRINT "CPI increases applied:"
2230 FOR K4=A7+1 TO A(2,3)+A7
2235 GOSUB 5900
2260 NEXT K4
2265 LPRINT ""
2270 LPRINT USING "PIA at entitlement = $#####.##";D(1,3): LPRINT ""
2275 LPRINT USING "MFB at entitlement = $#####.##";D(8,3)
2280 LPRINT CHR$(12)
2285 IF A(1,4)=0 THEN 2480
2290 LPRINT TAB(15);F$(4): LPRINT ""

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2295 LPRINT TAB(24);"high N"
2300 LPRINT "year earnings years": LPRINT ""
2305 I2=P6+1950
2310 FOR K3=G1 TO I2
2315 IF K3<=1950 THEN 2345
2320 LPRINT USING "#####.##";E(1,K3-1936),O(K3-G1+1);
2325 IF G(4,K3-1950)<=0 THEN 2335
2330 IF G(4,K3-1950)>0 THEN 2340
2335 LPRINT "": GOTO 2345
2340 LPRINT USING "#####.##";L(4,K3-1950)
2345 NEXT K3
2350 LPRINT CHR$(12)
2355 LPRINT TAB(15);F$(4): LPRINT ""
2360 LPRINT "N=";A9;"A8=";N1: LPRINT ""
2365 LPRINT USING "AME=#####.##";D(9,4);
2370 LPRINT USING "/(##*12)=#####";N1,D(5,4): LPRINT ""
2375 LPRINT USING "December 1978 PIA=#####.##";D(2,4): LPRINT ""
2380 LPRINT "MFB bend points=";Q(7,2);Q(7,3);"and";Q(7,4): LPRINT ""
2385 LPRINT "MFB at eligibility ="
2390 LPRINT USING "###*###.##+";Q(1,1),V(1,4)
2395 LPRINT USING "###*###.##+";Q(1,2),V(2,4)
2400 LPRINT USING "###*###.##+";Q(1,3),V(3,4)
2405 LPRINT USING "###*###.##=#####.##";Q(1,4),V(4,4),D(4,4)
2410 LPRINT ""
2415 IF A(2,4)<=0 THEN 2465
2420 LPRINT "CPI increases applied:"
2425 FOR K4=1+A7 TO A(2,4)+A7
2430 GOSUB 5900
2455 NEXT K4
2460 LPRINT ""
2465 LPRINT USING "PIA at entitlement = $###.##";D(1,4): LPRINT ""
2470 LPRINT USING "MFB at entitlement = $###.##";D(8,4)
2475 LPRINT CHR$(12)
2480 IF A(1,5)=0 THEN 2640
2485 LPRINT TAB(15);F$(5): LPRINT ""
2490 LPRINT TAB(22);"years of"
2495 LPRINT "year earnings coverage": LPRINT ""
2500 I2=P6+1950
2505 FOR K3=G1 TO I2
2510 LPRINT USING "#####.##";E(1,K3-1936),O(K3-G1+1);
2515 LPRINT USING " ";G(5,K3-1936)
2520 NEXT K3
2525 LPRINT CHR$(12)
2530 LPRINT TAB(15);F$(5): LPRINT ""
2535 LPRINT "Years of coverage=";G6: LPRINT ""
2540 LPRINT USING "Amount per year =###.##";V2: LPRINT ""
2545 IF T(2,2)<=1978 THEN 2625
2550 LPRINT USING "Jan 1979 PIA =##*###.##=#####.##";V3,V2,D(2,5)
2555 LPRINT ""
2560 IF T(2,2)=1979 AND T(2,1)<6 THEN 2615
2565 LPRINT USING "MFB in Jan 1979 =#####.##";D(4,5): LPRINT ""
2570 LPRINT "CPI increases applied:"
2575 FOR K4=29 TO 28+A(2,5)
2580 GOSUB 5900
2605 NEXT K4
2610 LPRINT ""
2615 LPRINT USING "PIA at entitlement = $###.##";D(1,5): LPRINT ""
2620 LPRINT USING "MFB at entitlement = $###.##";D(8,5): GOTO 2635
2625 LPRINT USING "PIA =##*###.##=#####.##";V3,V2,D(1,5): LPRINT ""
2630 LPRINT USING "MFB =#####.##";D(8,5)
2635 LPRINT CHR$(12)
2640 IF A(1,6)=0 THEN 2905
2645 LPRINT TAB(15);F$(6): LPRINT ""
2650 LPRINT TAB(28);"earnings",TAB(44);"indexed high N"
2655 LPRINT "year earnings *";
2660 LPRINT USING "$#####.##";B(5,V5+13);

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2665 LPRINT " earnings years": LPRINT ""
2670 I2=P6+1950
2675 FOR K2=G1 TO I2
2680 IF K2<=1950 THEN 2765
2685 LPRINT USING "#####.#";E(1,K2-1936),O(K2-G1+1);
2690 IF G(6,K2-1950)>0 THEN 2725
2695 IF K2>V5+1949 THEN 2715
2700 LPRINT USING "#####.#";B(3,K2-1950);
2705 LPRINT USING "#####.#";L(6,K2-1950)
2710 GOTO 2765
2715 LPRINT TAB(38):: LPRINT USING "#####.#";L(6,K2-1950)
2720 GOTO 2765
2725 IF K2>V5+1949 THEN 2750
2730 LPRINT USING "#####.#";B(3,K2-1950);
2735 LPRINT USING "#####.#";L(6,K2-1950);
2740 LPRINT USING "#####.#";L(6,K2-1950)
2745 GOTO 2765
2750 LPRINT TAB(38):: LPRINT USING "#####.#";L(6,K2-1950);
2760 LPRINT USING "#####.#";L(6,K2-1950)
2765 NEXT K2
2770 LPRINT CHR$(12)
2775 LPRINT TAB(15);F$(6): LPRINT "": I1=T(4,1)
2780 LPRINT "Widow born on ";D$(I1);T(4,2);T(4,3): LPRINT ""
2785 LPRINT "N =";A9;"-";A8;"=";N1: LPRINT ""
2790 LPRINT USING "AIME =#####.#";D(9,6);
2795 LPRINT USING "/(##*12) =#####";N1,D(5,6): LPRINT ""
2800 LPRINT "PIA bend points = ";Q(12,2);"and";Q(12,3): LPRINT ""
2805 LPRINT "PIA at eligibility = "
2810 LPRINT USING "#.## * ##### +";Q(2,1),H(1,6)
2815 LPRINT USING "#.## * ##### +";Q(2,2),H(2,6)
2820 LPRINT USING "#.## * ##### = #####.#";Q(2,3),H(3,6),D(2,6)
2825 LPRINT ""
2830 IF A(2,6)<=0 THEN 2890
2835 LPRINT "CPI increases applied:"
2840 M2=V5-32: IF M2<1 THEN M2=1
2845 IF M2>10 THEN M2=10
2850 FOR K4=1+V5 TO A(2,6)+V5
2855 GOSUB 5900
2880 NEXT K4
2885 LPRINT ""
2890 LPRINT USING "PIA at entitlement = $$$#.##";D(1,6): LPRINT ""
2895 LPRINT "MFB at entitlement = (same as for wage-indexed)"
2900 LPRINT CHR$(12)
2905 GOTO 9900
4000 REM Subroutine to compute PIA
4005 FOR K1=G2-G1+2 TO 65: O(K1)=0!: NEXT K1
4010 IF G1>1950 THEN 4055
4015 IF G1<=1937 THEN 4035
4020 FOR K1=G2 TO G1 STEP -1: O(K1-1937+1)=O(K1-G1+1): NEXT K1
4025 FOR K1=1 TO G1-1937: O(K1)=0!: NEXT K1
4030 LET G1=1937
4035 IF G2>=1950 THEN 4050
4040 FOR K1=G2-1935 TO 14: O(K1)=0!: NEXT K1
4045 LET G2=1950
4050 FOR K1=1 TO 14: C1=C1+O(K1): NEXT K1
4055 LET P5=G2-1936
4060 IF A5<>1 THEN P6=T(2,2)-1951
4065 IF A5=1 THEN P6=T(3,2)-1950
4070 IF A5<>2 THEN 4080
4075 P6=T(2,2)-1951: IF P6>T(3,2)-1950 THEN P6=T(3,2)-1950
4080 LET A(2,2)=0
4085 IF T(2,2)<=1974 THEN 4100
4090 A(2,2)=T(2,2)-1975: P7=6: IF T(2,2)>=1983 THEN P7=12
4095 IF T(2,1)>=P7 THEN A(2,2)=A(2,2)+1
4100 FOR K1=G1 TO G2
4105 IF O(K1-G1+1)>B(1,K1-1936) THEN O(K1-G1+1)=B(1,K1-1936)

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4110 NEXT K1
4115 P8=G1-1950: IF P8< 1 THEN P8= 1
4120 REM Start special-minimum PIA calculation
4125 IF T(2,2)< 1973 THEN 4445
4130 A(1,5)=1: PRINT "Working on special-minimum PIA"
4135 FOR K4=N2+ 1 TO P5
4140 E5=B(4,K4-1)*B(5,K4-2)/B(5,K4-3)
4145 B(4,K4)=INT(E5/300!+.5)*300!
4150 NEXT K4
4155 I2=INT(C1/900!)
4160 IF I2< =0 THEN 4185
4165 IF I2> 14 THEN I2=14
4170 FOR K3=15-I2 TO 14
4175 G(5,K3)=1: G6=G6+G(5,K3)
4180 NEXT K3
4185 I1=G1: IF I1< 1951 THEN I1= 1951
4190 I2=G2: IF I2> P6+ 1950 THEN I2=P6+ 1950
4195 FOR K3=I1 TO I2
4200 IF O(K3-G1+ 1)>=.25*B(4,K3-1936) THEN G(5,K3-1936)=1
4205 G6=G6+G(5,K3-1936): NEXT K3
4210 V2=11.5
4215 IF T(2,2)=1973 OR (T(2,2)=1974 AND T(2,1)< =2) THEN V2=8.5
4220 IF T(2,2)> =1975 AND T(2,2)< =1978 THEN V2=9!
4225 IF T(2,2)=1974 AND T(2,1)> =3 THEN V2=9!
4230 V3=G6-10: IF V3> 20 THEN V3=20
4235 IF V3< 0 THEN V3=0
4240 D(1,5)=V3*V2: D(2,5)=D(1,5)
4245 IF T(2,2)> =1979 THEN 4365
4250 V1=76
4255 IF T(2,2)> 1974 OR T(2,2)=1974 AND T(2,1)> =6 THEN 4270
4260 W5=V1: GOSUB 6600
4265 V4=W6: D(8,5)=W7: GOTO 4350
4270 W5=V1: GOSUB 6400
4275 V4=W6: D(8,5)=W7
4280 A(2,5)=A(2,2): IF A(2,5)< =0 THEN 4350
4285 FOR K3=1 TO A(2,5)
4290 I1=K3+ 24
4295 C9=V4*(C(2,K3)/100!+ 1!): G3=I1: GOSUB 8200
4300 V4=C9
4305 C9=D(8,5)*(C(2,K3)/100!+ 1!): G3=I1: GOSUB 8200
4310 D(8,5)=C9
4315 IF I1< N4+ 3 OR I1> N4+ 10 THEN 4345
4320 IF F(1,I1-N4-2)< .05 THEN 4345
4325 C9=V4*(F(1,I1-N4-2)/100!+ 1!): G3=I1: GOSUB 8200
4330 V4=C9
4335 C9=D(8,5)*(F(1,I1-N4-2)/100!+ 1!): G3=I1: GOSUB 8200
4340 D(8,5)=C9
4345 NEXT K3
4350 IF D(1,5)-V4-.01< =0 THEN 4445
4355 V1=V1+ 1: IF V1> 1000! THEN 4445
4360 GOTO 4255
4365 C9=1.5*D(1,5): G3=28: GOSUB 8200
4370 D(8,5)=C9: D(4,5)=D(8,5)
4375 IF T(2,2)=1979 AND T(2,1)< 6 THEN 4445
4380 A(2,5)=A(2,2)-4
4385 FOR K3=29 TO 28+A(2,5)
4390 C9=D(1,5)*(C(2,K3)/100!+ 1!): G3=K3: GOSUB 8200
4395 D(1,5)=C9
4400 C9=D(8,5)*(C(2,K3)/100!+ 1!): G3=K3: GOSUB 8200
4405 D(8,5)=C9
4410 IF K3< N4+ 3 OR K3> N4+ 10 THEN 4440
4415 IF F(1,K3-N4-2)< .05 THEN 4440
4420 C9=D(1,5)*(F(1,K3-N4-2)/100!+ 1): G3=K3: GOSUB 8200
4425 D(1,5)=C9
4430 C9=D(8,5)*(F(1,K3-N4-2)/100!+ 1): G3=K3: GOSUB 8200
4435 D(8,5)=C9

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4440 NEXT K3
4445 REM Start PIA Table method
4450 IF A7 > 27 OR T(2,2) < 1953 THEN 4570
4455 IF A5 = 1 AND T(3,2) < 1953 THEN 4570
4460 A(1,2) = 1: PRINT "Working on PIA Table calculation"
4465 FOR K3 = P8 TO P6
4470 I1 = K3 - P8 + 1: IF 1951 - G1 > 0 THEN I1 = I1 + 1951 - G1
4475 E(4,K3) = O(I1): L(2,K3) = E(4,K3): NEXT K3
4480 S3 = 2: S6 = P8: S7 = P6: S8 = N1: GOSUB 6200
4485 IF T(2,2) < 1974 OR T(2,2) = 1974 AND T(2,1) <= 5 THEN 4500
4490 T1 = 24 + A(2,2): T2 = 0: GOSUB 5225
4495 GOTO 4570
4500 W5 = D(5,2)
4505 IF T(2,2) = 1952 AND T(2,1) >= 9 OR T(2,2) = 1953 THEN GOSUB 8000
4510 IF T(2,2) = 1954 AND T(2,1) < 9 THEN GOSUB 8000
4515 IF T(2,2) = 1954 AND T(2,1) >= 9 THEN GOSUB 8100
4520 IF T(2,2) >= 1955 AND T(2,2) <= 1958 THEN GOSUB 8100
4525 IF T(2,2) >= 1959 AND T(2,2) <= 1964 THEN GOSUB 7700
4530 IF T(2,2) >= 1965 AND T(2,2) <= 1967 THEN GOSUB 7500
4535 IF T(2,2) = 1968 AND T(2,1) = 1 THEN GOSUB 7500
4540 IF T(2,2) = 1968 AND T(2,1) >= 2 OR T(2,2) = 1969 THEN GOSUB 7200
4545 IF T(2,2) = 1970 THEN GOSUB 7000
4550 IF T(2,2) = 1971 OR T(2,2) = 1972 AND T(2,1) <= 8 THEN GOSUB 6800
4555 IF T(2,2) = 1972 AND T(2,1) >= 9 OR T(2,2) = 1973 THEN GOSUB 6600
4560 IF T(2,2) = 1974 AND T(2,1) <= 5 THEN GOSUB 6600
4565 D(1,2) = W6: D(8,2) = W7
4570 REM Start transitional-guarantee method
4575 IF A7 < 28 OR A7 > 32 OR A5 = 2 THEN 4630
4580 IF A5 = 1 AND T(3,2) < T(5,3) + 62 THEN 4630
4585 IF T(3,2) = T(5,3) + 62 AND T(3,1) < T(5,1) THEN 4630
4590 A(1,4) = 1: PRINT "Working on transitional guarantee PIA"
4595 FOR K3 = P8 TO A7
4600 I1 = K3 - P8 + 1: IF 1951 - G1 > 0 THEN I1 = I1 + 1951 - G1
4605 E(4,K3) = O(I1): L(4,K3) = E(4,K3): NEXT K3
4610 S3 = 4: S6 = P8: S7 = A7: S8 = N1: GOSUB 6200
4615 T1 = 28: T2 = 1: GOSUB 5225
4620 GOSUB 6000
4625 U2 = A7: U3 = P7: GOSUB 5115
4630 REM Start wage-indexed method
4635 IF A7 <= 27 THEN 4855
4640 A(1,3) = 1: PRINT "Working on wage-indexed PIA"
4645 P4 = 10: Q(2,1) = .9: Q(2,2) = .32: Q(2,3) = .15
4650 FOR K3 = P8 TO A7 - 1
4655 I2 = K3 - P8 + 1: IF 1951 - G1 > 0 THEN I2 = I2 + 1951 - G1
4660 B(2,K3) = B(5,A7 + 13) * O(I2)
4665 E(4,K3) = B(2,K3) / B(5,K3 + 14)
4670 E(4,K3) = INT(E(4,K3) * 100! + .5) / 100!
4675 L(3,K3) = E(4,K3)
4680 NEXT K3
4685 FOR K3 = A7 TO P6
4690 I2 = K3 - P8 + 1: IF 1951 - G1 > 0 THEN I2 = I2 + 1951 - G1
4695 E(4,K3) = O(I2): L(3,K3) = E(4,K3): NEXT K3
4700 S3 = 3: S6 = P8: S7 = P6: S8 = N1: GOSUB 6200
4705 Q(8,2) = INT(180! * B(5,A7 + 13) / B(5,41) + .5)
4710 Q(8,3) = INT(1085! * B(5,A7 + 13) / B(5,41) + .5)
4715 H(1,3) = D(5,3): IF H(1,3) > Q(8,2) THEN H(1,3) = Q(8,2)
4720 H(2,3) = D(5,3) - Q(8,2)
4725 IF H(2,3) > Q(8,3) - Q(8,2) THEN H(2,3) = Q(8,3) - Q(8,2)
4730 IF H(2,3) < 0 THEN H(2,3) = 0
4735 H(3,3) = D(5,3) - Q(8,3): IF H(3,3) < 0 THEN H(3,3) = 0
4740 FOR K3 = 1 TO 3: D(2,3) = D(2,3) + Q(2,K3) * H(K3,3): NEXT K3
4745 C9 = D(2,3): G3 = A7: GOSUB 8200
4750 D(2,3) = C9
4755 IF F6 < .001 OR A7 <= 34 THEN 4835
4760 IF G6 < 30 THEN GOTO 4770
4765 P1 = -1: GOTO 4835

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4770 Q(11,3)=D(2,3)
4775 P1=1: D(2,3)=D(2,3)-.5*F6
4780 C9=D(2,3): G3=A7: GOSUB 8200
4785 D(2,3)=C9
4790 Q(4,1)=.9-.1*(A7-34): IF Q(4,1)<.4 THEN Q(4,1)=.4
4795 Q(4,2)=Q(2,2): Q(4,3)=Q(2,3)
4800 I2=30-G6: IF I2>5 THEN I2=5
4805 IF Q(4,1)<.9-.1*I2 THEN Q(4,1)=.9-.1*I2
4810 V4=0
4815 FOR K3=1 TO 3: V4=V4+Q(4,K3)*H(K3,3): NEXT K3
4820 C9=V4: G3=A7: GOSUB 8200
4825 V4=C9: IF V4<D(2,3) THEN 4835
4830 P1=2: D(2,3)=V4
4835 D(1,3)=D(2,3): GOSUB 6000
4840 U2=A7: U3=P7: GOSUB 5115
4845 IF A7>=31 THEN 4855
4850 IF D(1,3)<122! THEN D(1,3)=122!: D(8,3)=183!
4855 REM Start re-indexed widow guarantee
4860 IF A7<=27 OR A5<>1 THEN 5045
4865 IF T(3,2)>T(5,3)+62 THEN 5045
4870 IF T(3,2)=T(5,3)+62 AND T(2,1)>=T(5,1) THEN 5045
4875 IF A4<=0 THEN 5045
4880 IF A4=1 THEN V5=T(4,3)+50-1951
4885 IF A4>=2 THEN V5=T(4,3)+60-1951
4890 IF T(4,1)=1 AND T(4,2)=1 THEN V5=V5-1
4895 IF V5<=33 THEN 5045
4900 A(1,6)=1: PRINT "Working on re-indexed widow guarantee"
4905 IF V5<A7 THEN V5=A7
4910 I2=T(5,3)+62-1951
4915 IF T(5,1)=1 AND T(5,2)=1 THEN I2=I2-1
4920 IF V5>I2 THEN V5=I2
4925 FOR K3=P8 TO V5-1
4930 I2=K3-P8+1: IF 1951-G1>0 THEN I2=I2+1951-G1
4935 B(3,K3)=B(5,V5+13)*O(I2)
4940 E(4,K3)=B(3,K3)/B(5,K3+14)
4945 E(4,K3)=INT(E(4,K3)*100!+.5)/100
4950 L(6,K3)=E(4,K3)
4955 NEXT K3
4960 FOR K3=V5 TO P6
4965 I2=K3-P8+1: IF 1951-G1>0 THEN I2=I2+1951-G1
4970 E(4,K3)=O(K3): L(6,K3)=E(4,K3)
4975 NEXT K3
4980 S3=6: S6=P8: S7=P6: S8=N1: GOSUB 6200
4985 Q(12,2)=INT(180!*B(5,V5+13)/B(5,41)+.5)
4990 Q(12,3)=INT(1085!*B(5,V5+13)/B(5,41)+.5)
4995 H(1,6)=D(5,6): IF H(1,6)>Q(12,2) THEN H(1,6)=Q(12,2)
5000 H(2,6)=D(5,6)-Q(12,2)
5005 IF H(2,6)>Q(12,3)-Q(12,2) THEN H(2,6)=Q(12,3)-Q(12,2)
5010 IF H(2,6)<0 THEN H(2,6)=0
5015 H(3,6)=D(5,6)-Q(12,3): IF H(3,6)<0 THEN H(3,6)=0
5020 FOR K3=1 TO 3: D(1,6)=D(1,6)+Q(2,K3)*H(K3,6): NEXT K3
5025 C9=D(1,6): G3=V5: GOSUB 8200
5030 D(1,6)=C9: D(2,6)=D(1,6): D(4,6)=D(4,3)
5035 U2=V5: U3=P7: GOSUB 5115
5040 D(8,6)=D(8,3)
5045 REM Calculate highest PIA and DI family maximum
5050 V6=0!: I1=0
5055 FOR K3=1 TO 6
5060 IF V6>D(1,K3) THEN 5070
5065 V6=D(1,K3): I1=K3
5070 NEXT K3
5075 IF I1>0 THEN A(1,I1)=2
5080 IF A5<>2 THEN RETURN
5085 IF T(2,2)=1979 OR (T(2,2)=1980 AND T(2,1)<=6) THEN RETURN
5090 IF .85*D(5,3)<1.5*V6 THEN 5100
5095 V7=1.5: P2=1: D(8,I1)=V7*V6: RETURN

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5100 IF .85*D(5,3)>1!*V6 THEN 5110
5105 V7=1!: P2=3: D(8,1)=V7*V6: RETURN
5110 V7=.85: P2=2: D(8,1)=V7*D(5,3): RETURN
5115 REM Subroutine to apply CPI increase to 1977 Amendments
5120 A(2,S3)=0
5125 IF T(2,2)-1951 <=U2 AND T(2,1)<U3 THEN RETURN
5130 U7=U2+1
5135 IF U7<=28 THEN RETURN
5140 U8=U2-N4+1: IF U8<1 THEN U8=1
5145 IF U8>10 THEN U8=10
5150 U9=T(2,2)-1951
5155 IF T(2,1)>=U3 THEN U9=U9+1
5160 FOR K1=U7 TO U9
5165 C9=D(1,S3)*(C(2,K1)/100!+1!): G3=K1: GOSUB 8200
5170 D(1,S3)=C9
5175 C9=D(8,S3)*(C(2,K1)/100!+1!): G3=K1: GOSUB 8200
5180 D(8,S3)=C9
5185 IF K1<N4+3 OR K1>N4+10 THEN 5215
5190 IF F(U8,K1-N4-2)<.05 THEN 5215
5195 C9=D(1,S3)*(F(U8,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5200 D(1,S3)=C9
5205 C9=D(8,S3)*(F(U8,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5210 D(8,S3)=C9
5215 A(2,S3)=A(2,S3)+1: NEXT K1
5220 RETURN
5225 REM Subroutine to apply CPI and wage base increase to 1973 Act
5230 T4=0: T5=A7-N4+1: IF T5<1 THEN T5=1
5235 IF T5>10 THEN T5=10
5240 IF D(5,S3)<=1100 THEN 5415
5245 FOR K1=25 TO T1
5250 IF D(5,S3)<=B(1,K1+14)/12! AND T4=0 THEN T4=K1
5255 NEXT K1
5260 W5=1100: GOSUB 6400
5265 D(1,S3)=W6: D(8,S3)=W7: IF T4=25 THEN 5405
5270 FOR K1=25 TO T4-1
5275 C6=B(1,K1+13)/12!: C7=B(1,K1+14)/12!
5280 IF (CINT(B(1,K1+13))/60)*60=CINT(B(1,K1+13)) THEN 5290
5285 C6=CSNG((CINT(B(1,K1+13))/60)*5)
5290 IF (CINT(B(1,K1+14))/60)*60=CINT(B(1,K1+14)) THEN 5300
5295 C7=CSNG((CINT(B(1,K1+14))/60)*5)
5300 D(1,S3)=D(1,S3)+.2*(C7-C6)
5305 C9=1.75*D(1,S3): G3=K1-1: GOSUB 8200
5310 D(8,S3)=C9
5315 C9=D(1,S3)*(1!+C(2,K1)/100!): G3=K1: GOSUB 8200
5320 D(1,S3)=C9
5325 C9=D(8,S3)*(1!+C(2,K1)/100!): G3=K1: GOSUB 8200
5330 D(8,S3)=C9
5335 C9=1.5*D(1,S3): G3=K1: GOSUB 8200
5340 C8=C9
5345 IF D(8,S3)<C8 THEN D(8,S3)=C8
5350 IF K1=28 AND T2>0 THEN D(2,S3)=D(1,S3)
5355 IF K1<36 OR K1>43 THEN 5400
5360 IF F(T5,K1-N4-2)<.05 THEN 5400
5365 C9=D(1,S3)*(F(T5,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5370 D(1,S3)=C9
5375 C9=D(8,S3)*(F(T5,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5380 D(8,S3)=C9
5385 C9=1.5*D(1,S3): G3=K1: GOSUB 8200
5390 C8=C9
5395 IF D(8,S3)<C8 THEN D(8,S3)=C8
5400 NEXT K1
5405 D(1,S3)=D(1,S3)+INT((D(5,S3)-B(1,T4+13)/12!+4!)/5!)
5410 U1=T4: GOTO 5460
5415 IF A7>29 AND T2>0 AND D(5,S3)<=75 THEN 5440
5420 W5=D(5,S3): W6=D(1,S3): W7=D(8,S3): GOSUB 6400
5425 D(1,S3)=W6: D(8,S3)=W7: D(2,S3)=D(1,S3): D(4,S3)=D(8,S3)

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5430 U1=25: IF T1 < U1 THEN RETURN
5435 GOTO 5460
5440 C9=D(5,S3)*121.8/76!: G3=28: GOSUB 8200
5445 D(1,S3)=C9: D(2,S3)=D(1,S3)
5450 C9=1.5*D(1,S3): G3=28: GOSUB 8200
5455 D(8,S3)=C9: D(4,S3)=D(8,S3): RETURN
5460 FOR K1=U1 TO T1
5465 C9=D(1,S3)*(1!+C(2,K1)/100!): G3=K1: GOSUB 8200
5470 D(1,S3)=C9
5475 C9=D(8,S3)*(1!+C(2,K1)/100!): G3=K1: GOSUB 8200
5480 D(8,S3)=C9
5485 C9=1.5*D(1,S3): G3=K1: GOSUB 8200
5490 C8=C9
5495 IF D(8,S3) < C8 THEN D(8,S3)=C8
5500 IF K1=28 AND T2 > 0! THEN D(2,S3)=D(1,S3)
5505 IF K1 < N4+3 OR K1 > N4+10 THEN RETURN 5550
5510 IF F(T5,K1-N4-2) < .05 THEN 5550
5515 C9=D(1,S3)*(F(T5,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5520 D(1,S3)=C9
5525 C9=D(8,S3)*(F(T5,K1-N4-2)/100!+1!): G3=K1: GOSUB 8200
5530 D(8,S3)=C9
5535 C9=1.5*D(1,S3): G3=K1: GOSUB 8200
5540 C8=C9
5545 IF D(8,S3) < C8 THEN D(8,S3)=C8
5550 NEXT K1
5555 RETURN
5900 REM Subroutine to print out benefit increase
5905 LPRINT USING " ##.# % for ####";C(2,K4),E(1,K4+14)
5910 IF K4 < N4+3 OR K4 > N4+10 THEN RETURN
5915 IF F(G4,K4-N4-2) < .05 THEN RETURN
5920 LPRINT USING " ##.# % for ####";F(G4,K4-N4-2),E(1,14+K4);
5925 LPRINT " catch-up": RETURN
6000 REM Subroutine to calculate MFB at eligibility under 1977 law
6005 Q(1,1)=1.5: Q(1,2)=2.72: Q(1,3)=1.34: Q(1,4)=1.75
6010 Q(7,2)=INT(230!*B(5,A7+13)/B(5,41)+.5)
6015 Q(7,3)=INT(332!*B(5,A7+13)/B(5,41)+.5)
6020 Q(7,4)=INT(433!*B(5,A7+13)/B(5,41)+.5)
6025 V(1,S3)=D(2,S3): IF V(1,S3) > Q(7,2) THEN V(1,S3)=Q(7,2)
6030 V(2,S3)=D(2,S3)-Q(7,2)
6035 IF V(2,S3) > Q(7,3)-Q(7,2) THEN V(2,S3)=Q(7,3)-Q(7,2)
6040 IF V(2,S3) < 0 THEN V(2,S3)=0
6045 V(3,S3)=D(2,S3)-Q(7,3)
6050 IF V(3,S3) > Q(7,4)-Q(7,3) THEN V(3,S3)=Q(7,4)-Q(7,3)
6055 IF V(3,S3) < 0 THEN V(3,S3)=0
6060 V(4,S3)=D(2,S3)-Q(7,4): IF V(4,S3) < 0 THEN V(4,S3)=0
6065 C9=0!
6070 FOR K1=1 TO 4: C9=C9+Q(1,K1)*V(K1,S3): NEXT K1
6075 G3=A7: GOSUB 8200
6080 D(8,S3)=C9: D(4,S3)=D(8,S3): RETURN
6200 REM Subroutine to order earnings to compute an AIME or AME
6205 FOR K1=1 TO N5: E(3,K1)=K1: G(S3,K1)=0: NEXT K1
6210 FOR K1=S6 TO S7-1
6215 FOR K2=K1+1 TO S7
6220 IF E(4,K1) <= E(4,K2) THEN 6235
6225 C4=E(4,K1): E(4,K1)=E(4,K2): E(4,K2)=C4
6230 S4=E(3,K1): E(3,K1)=E(3,K2): E(3,K2)=S4
6235 NEXT K2
6240 NEXT K1
6245 D(9,S3)=0!
6250 FOR K1=S7-S8+1 TO S7
6255 S4=E(3,K1): G(S3,S4)=1: D(9,S3)=D(9,S3)+E(4,K1)
6260 NEXT K1
6265 D(5,S3)=INT(D(9,S3)/(S8*12!)): RETURN
6400 REM Subroutine to calculate PIA under 1973 Act, effective 6/1974
6405 IF W5 > 1000! THEN 6455
6410 GOSUB 6600

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6415 P4=9
6420 C9=1.11*W6: G3=24: GOSUB 8200
6425 W6=C9
6430 C9=1.11*W7: G3=24: GOSUB 8200
6435 W7=C9
6440 C9=1.5*W6: G3=24: GOSUB 8200
6445 R1=C9: IF W7<R1 THEN W7=R1
6450 RETURN
6455 P4=9: W6=INT((W5+4.01)/5!)+249!
6460 C9=1.75*W6: G3=24: GOSUB 8200
6465 W7=C9: RETURN
6600 REM Subroutine to calculate PIAs under 1972 Act, effective 9/1972
6605 IF W5>750 THEN 6655
6610 GOSUB 6800
6615 P4=8
6620 C9=1.2*W6: G3=22: GOSUB 8200
6625 W6=C9
6630 C9=1.2*W7: G3=22: GOSUB 8200
6635 W7=C9
6640 C9=1.5*W6: G3=22: GOSUB 8200
6645 Q5=C9: IF W7<Q5 THEN W7=Q5
6650 GOTO 6675
6655 P4=8
6660 W6=INT((W5+4.01)/5!)+204.5
6665 C9=1.75*W6: G3=22: GOSUB 8200
6670 W7=C9
6675 IF T(2,2)<>1974 OR T(2,1)<3! OR T(2,1)>5 THEN RETURN
6680 C9=1.07*W6: G3=24: GOSUB 8200
6685 W6=C9
6690 C9=1.07*W7: G3=24: GOSUB 8200
6695 W7=C9: RETURN
6800 REM Subroutine to calculate PIAs under 1971 Act
6805 IF W5>651! THEN 6880
6810 GOSUB 7000
6815 Q7=Q8: P4=7: C9=1.1*W6: G3=21: GOSUB 8200
6820 W6=C9
6825 IF W5>627! THEN 6900
6830 IF W5<=436! THEN 6850
6835 W7=383.68+.44*191!
6840 IF Q7-436<191 THEN W7=W7+.44*(Q7-436-191)
6845 GOTO 6855
6850 W7=.88*Q7
6855 C9=W7: G3=21: GOSUB 8200
6860 W7=C9
6865 C9=1.5*W6: G3=21: GOSUB 8200
6870 Q6=C9: IF W5<240! OR W7<Q6 THEN W7=Q6
6875 RETURN
6880 P4=7
6885 IF W5>656! THEN W6=INT((W5+4.01)/5!)+145.4
6890 IF W5<=656! AND W5>=653! THEN W6=276.6
6895 IF W5=652 THEN W6=275.8
6900 C9=1.75*W6: G3=21: GOSUB 8200
6905 W7=C9: RETURN
7000 REM Subroutine to calculate PIAs under 1969 Act
7005 GOSUB 7200
7010 Q8=Q3: P4=6
7015 C9=1.15*W6: G3=20: GOSUB 8200
7020 W6=C9
7025 IF W6<64! THEN W6=64!
7030 IF W5>239! THEN RETURN
7035 C9=1.5*W6: G3=20: GOSUB 8200
7040 W7=C9: RETURN
7200 REM Subroutine to calculate PIAs under 1967 Act
7205 IF W5>553 THEN 7240
7210 GOSUB 7500
7215 P4=5

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7220 C9=W6*1.13: G3=18: GOSUB 8200
7225 W6=C9
7230 IF W6<55 THEN W6=55
7235 GOTO 7290
7240 P4=5: W6=189.598+.2843*(W5-550!)
7245 S9=0: IF W6-FIX(W6)>=.49999 THEN S9=1
7250 W6=S9+FIX(W6)
7255 Q3=W5
7260 Q3=Q3+1
7265 Q4=189.598+.2843*(Q3-550!)
7270 S9=0: IF Q4-FIX(Q4)>.49999 THEN S9=1
7275 Q4=S9+FIX(Q4)
7280 IF (Q4-W6)<.1 AND Q4-W6>-.1 THEN 7260
7285 Q3=Q3-1: GOTO 7310
7290 IF W5>370 THEN 7310
7295 IF W5>=179 THEN RETURN
7300 C9=1.5*W6: G3=18: GOSUB 8200
7305 W7=C9: RETURN
7310 IF W5<=436! THEN 7325
7315 W7=348.8+.4*(Q3-436): IF W7>434.4 THEN W7=434.4
7320 RETURN
7325 W7=.8*Q3: RETURN
7500 REM Subroutine to calculate PIAs under 1965 Act
7505 GOSUB 7700
7510 P4=4: IF W5>94 THEN 7525
7515 W6=W6+4: IF W6<44 THEN W6=44
7520 W7=1.5*W6: RETURN
7525 IF W5>403! THEN 7540
7530 C9=W6*1.07: G3=15: GOSUB 8200
7535 W6=C9: GOTO 7545
7540 W6=W6+9!
7545 IF W5>314 THEN 7565
7550 IF W5>=142 THEN RETURN
7555 C9=1.5*W6: G3=15: GOSUB 8200
7560 W7=C9: RETURN
7565 IF W5<=370 THEN 7580
7570 W7=296!+4!*(W9-370!): IF W7>368! THEN W7=368!
7575 RETURN
7580 W7=.8*W9: RETURN
7700 REM Subroutine to calculate PIAs under 1958 Act
7705 P4=3: IF W5>84 THEN 7715
7710 W6=3.49+.55*W5: GOTO 7725
7715 W6=.5885*110: IF W5<110 THEN W6=.5885*W5
7720 IF W5>110 THEN W6=W6+.214*(W5-110)
7725 W8=0!: IF W6-FIX(W6)>=.49999 THEN W8=1!
7730 W6=W8+FIX(W6)
7735 IF W6<33 THEN W6=33
7740 IF W5=553 THEN W6=159
7745 IF T(2,2)>1961 AND W6<40 THEN W6=40
7750 IF T(2,2)=1961 AND T(2,1)>=8 AND W6<40 THEN W6=40
7755 IF W5<=127 THEN 7805
7760 W9=W5
7765 W9=W9+1
7770 Q1=41.195+.214*W9
7775 W8=0!: IF Q1-FIX(Q1)>.49999 THEN W8=1
7780 Q1=W8+FIX(Q1)
7785 IF (Q1-W6)<1 AND (Q1-W6)>-1 THEN 7765
7790 IF W9<>553 THEN W9=W9-1
7795 W7=.8*W9: IF W7>254 THEN W7=254
7800 RETURN
7805 W7=1.5*W6: IF W7<W6+20 THEN W7=W6+20
7810 RETURN
8000 REM Subroutine to calculate PIAs under 1952 Act
8005 W6=.55*100: IF W5<100 THEN W6=.55*W5
8010 IF W5>100 THEN W6=W6+.15*(W5-100)
8015 C9=W6: G3=2: GOSUB 8200

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8020 W6=C9: IF W6<25 THEN W6=25
8025 W7=.8*W5: IF W7<45 THEN W7=45
8030 IF W7>168.75 THEN W7=168.75
8035 P4=1: RETURN
8100 REM Subroutine to calculate PIAs under 1954 Act
8105 W6=.55*110: IF W5<110 THEN W6=.55*W5
8110 IF W5>110 THEN W6=W6+.2*(W5-110)
8115 C9=W6: G3=4: GOSUB 8200
8120 W6=C9: IF W6<30 THEN W6=30
8125 W7=.8*W5: IF W7<50 THEN W7=50
8130 IF W7<1.5*W6 THEN W7=1.5*W6
8135 IF W7>200 THEN W7=200
8140 P4=2: RETURN
8200 REM Subroutine to round a PIA or MFB to appropriate dime
8205 IF G3>31 THEN 8235
8210 IF G3>=23 THEN Q9=.01
8215 IF G3<23 THEN Q9=.499
8220 X9=10!(10!*C9-FIX(10!*C9))
8225 IF CSNG(1000*X9 MOD 10000)/1000!<Q9 THEN RETURN
8230 C9=C9+.1-CSNG(1000*X9 MOD 10000)/100000!: RETURN
8235 C9=INT(10!*C9+.001)/10!: RETURN
8300 REM This subroutine projects average wages and benefit increases
8305 LET B(6,46)=5.5052
8310 IF A1<5 THEN 8385
8315 FOR K2=N6+1 TO T(2,2)-1936
8320 PRINT "Enter average wage percentage increase for";1936+K2
8325 INPUT B(6,K2): NEXT K2
8330 FOR K2=N4+1 TO T(2,2)-1950
8335 PRINT "Enter benefit increase for";1950+K2
8340 INPUT C(2,K2): NEXT K2
8345 INPUT "Are there any catch-up benefit increases? (y or n)>",C$
8350 IF C$<<"Y" AND C$<<"y" THEN GOTO 8385
8355 FOR K2=1 TO 10: FOR K1=1 TO 8
8360 K3=1950+N4+K2
8365 PRINT "Enter catchup benefit increase for year of eligibility";K3
8370 PRINT "for increase in Dec";1952+N4+K1
8375 INPUT F(K2,K1)
8380 NEXT K1: NEXT K2
8385 FOR K2=N4+1 TO N7
8390 IF A1=0 THEN C(2,K2)=0!
8395 IF A1>=1 AND A1<=4 THEN C(2,K2)=Y(A1,K2)
8400 NEXT K2
8405 FOR K3=N6+1 TO N5
8410 IF A1=0 THEN B(6,K3)=0!
8415 IF A1>=1 AND A1<=4 THEN B(6,K3)=W(A1,K3-14)
8420 LET B(5,K3)=B(5,K3-1)*(B(6,K3)/100!+1!)
8425 B(5,K3)=INT((B(5,K3)*100!+.5)): B(5,K3)=B(5,K3)/100!: NEXT K3
8430 IF A1<>0 THEN 8455
8435 FOR K4=1 TO 8: FOR K5=1 TO 10
8440 F(K5,K4)=0!
8445 NEXT K5: NEXT K4
8450 RETURN
8455 IF A1>4 THEN RETURN
8460 FOR K3=1 TO 8: FOR K4=1 TO 10
8465 F(K4,K3)=M(A1,K4,K3)
8470 NEXT K4: NEXT K3
8475 RETURN
8600 REM This subroutine projects the wage base
8605 I9=N2: N3=1
8610 IF B(1,I9)>0 THEN 8655
8615 N3=1
8620 IF C(2,I9+N3-2-14)>=1! THEN 8640
8625 B(1,I9+N3-1)=B(1,I9-1): N3=N3+1
8630 IF I9+N3>N5 THEN 8655
8635 GOTO 8620
8640 LET E5=B(1,I9-1)

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8645 FOR I1=1 TO N3: E5=(E5+.001)*(1+B(6,I9+I1-3)/100!): NEXT I1
8650 B(1,I9+N3-1)=INT(E5/300!+.5)*300
8655 I9=I9+N3: IF I9<=N5 THEN 8610
8660 RETURN
8800 REM This subroutine computes the year of eligibility
8805 A7=T(5,3)+62-1951
8810 IF A6=1 AND A7<24 THEN A7=A7+3: IF A7>24 THEN A7=24
8815 IF T(5,1)=1 AND T(5,2)=1 THEN A7=A7-1
8820 IF A5>0 AND A7>T(3,2)-1951 THEN A7=T(3,2)-1951
8825 IF A7<0 THEN A7=0
8830 A8=5: IF A5=0 THEN 8895
8835 I1=A7: I2=A7-(T(5,3)-1929)
8840 IF T(5,1)=1 AND T(5,2)=1 THEN I2=A7-(T(5,3)-1930)
8845 IF A5<>2 OR T(3,1)<>12 THEN 8855
8850 I1=I1+1: I2=I2+1
8855 A9=I1: IF A9>I2 THEN A9=I2
8860 IF A9<2 THEN A9=2
8865 IF A9>40 THEN A9=40
8870 IF A7<28 OR A5<>2 THEN 8885
8875 IF T(2,2)>=1981 AND A9/5<5 THEN A8=INT(A9/5)
8880 IF T(2,2)=1980 AND T(2,1)>=7 AND A9/5<5 THEN A8=INT(A9/5)
8885 N1=A9-A8: IF N1<2 THEN N1=2: A8=A9-N1
8890 RETURN
8895 A9=A7: IF A9>40 THEN A9=40
8900 N1=A9-A8: IF A7>=7 THEN RETURN
8905 N1=A7-2: IF N1<2 THEN N1=2
8910 A8=A9-N1
8915 RETURN
9000 REM This subroutine calculates early or delayed retirement factor
9005 IF A5>0 THEN 9215
9010 IF A7>=49 THEN 9020
9015 T(6,2)=0: T(6,1)=65: GOTO 9055
9020 IF A7>=54 THEN 9030
9025 I6=A7-48: T(6,1)=65: T(6,2)=2*I6: GOTO 9055
9030 IF A7>=66 THEN 9040
9035 T(6,1)=66: T(6,2)=0: GOTO 9055
9040 IF A7>=71 THEN 9050
9045 I6=A7-65: T(6,1)=66: T(6,2)=2*I6: GOTO 9055
9050 T(6,1)=67: T(6,2)=0
9055 IF T(1,1)<T(6,1) OR (T(1,1)=T(6,1) AND T(1,2)<T(6,2)) THEN 9130
9060 I3=T(5,1)+T(6,2)+12*(T(5,3)-1971+T(6,1))
9062 IF T(5,2)=1 THEN I3=I3-1
9065 I1=I3: IF I1<1 THEN I1=1
9070 IF A7>22 THEN 9075
9071 I4=T(5,1)+12*(T(5,3)+72-1971): IF T(5,2)=1 THEN I4=I4-1
9072 GOTO 9085
9075 IF A7>24 THEN 9080
9076 I4=157: GOTO 9085
9080 I4=T(5,1)+12*(T(5,3)+70-1971): IF T(5,2)=1 THEN I4=I4-1
9085 LET I5=T(2,1)+12*(T(2,2)-1971)
9090 I2=I4: IF I2>I5 THEN I2=I5
9095 LET C3=I2-I1: IF C3<0 THEN C3=0
9100 IF A7<28 THEN C2=1!/1200!
9105 IF A7>=28 AND A7<36 THEN C2=1!/400!
9110 IF A7>35 AND A7<54 THEN C2=((A7-34)/2)/2400!+1/400!
9115 IF A7>=54 THEN C2=2!/300!
9120 LET C5=1+C3*C2
9125 RETURN
9130 T(7,1)=65: T(7,2)=0
9135 IF A6=1 THEN GOTO 9150
9140 IF T(2,2)>1956 OR (T(2,2)=1956 AND T(2,1)>=11) THEN T(7,1)=62
9145 GOTO 9155
9150 IF T(2,2)>1961 OR (T(2,2)=1961 AND T(2,1)>=8) THEN T(7,1)=62
9155 IF T(2,2)<1981 OR (T(2,2)=1981 AND T(2,1)<=8) THEN GOTO 9170
9160 IF T(5,2)=2 THEN GOTO 9170
9165 T(7,2)=1

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9170 IF T(1,1)<T(7,1) THEN GOTO 9200
9175 IF T(1,1)=T(7,1) AND T(1,2)<T(7,2) THEN GOTO 9200
9180 LET C3=(T(6,1)*12+T(6,2))-T(1,1)*12+T(1,2)
9185 IF C3>36 THEN 9195
9190 C5=1!-(C3*5!/900!): RETURN
9195 C5=.8-((C3-36)*5!/1200!): RETURN
9200 PRINT "Retirement at age";T(1,1);"and";T(1,2);"mos is impossible;"
9205 PRINT "Earliest possible ret age is";T(7,1);"and";T(7,2);"months"
9210 GOTO 9900
9215 IF T(1,1)<0 THEN PRINT "Inconsistent data": GOTO 9900
9220 IF A5>1 THEN 9325
9225 IF A4>0 THEN 9235
9230 C5=1!: RETURN
9235 IF A4>1 THEN 9270
9240 IF T(2,2)>1968 OR (T(2,2)=1968 AND T(2,1)>1) THEN 9250
9245 PRINT "No disabled widow benefits until February 1968": GOTO 9900
9250 IF T(8,1)>=50 THEN 9265
9255 PRINT "Disabled widow benefits at age";T(8,1);"and";T(8,2);"mos is"
9260 PRINT "impossible; earliest possible age is 50": GOTO 9900
9265 C5=1!: RETURN
9270 IF T(2,2)>1956 OR (T(2,2)=1956 AND T(2,1)>10) THEN 9290
9275 IF T(8,1)>=65 THEN C5=1!: RETURN
9280 PRINT "Aged widow benefits at age";T(8,1);"and";T(8,2);"mos is"
9285 PRINT "impossible; earliest possible age is 65": GOTO 9900
9290 IF T(2,2)>1965 OR (T(2,2)=1965 AND T(2,1)>8) THEN 9310
9295 IF T(8,1)>=62 THEN C5=1!: RETURN
9300 PRINT "Aged widow benefits at age";T(8,1);"and";T(8,2);"mos is"
9305 PRINT "impossible; earliest possible age is 62": GOTO 9900
9310 IF T(8,1)>=60 THEN C5=1!: RETURN
9315 PRINT "Aged widow benefits at age";T(8,1);"and";T(8,2);"mos is"
9320 PRINT "impossible; earliest possible age is 60": GOTO 9900
9325 IF T(2,2)>1959 THEN 9360
9330 IF T(2,2)>1956 THEN 9340
9335 PRINT "No disability benefits until 1957": GOTO 9900
9340 IF T(1,1)>=50 THEN 9360
9345 PRINT "Disability benefits at age";T(1,1);"and";T(1,2);"mos is"
9350 PRINT "impossible; earliest possible age is 50 in";T(2,2)
9355 GOTO 9900
9360 IF T(1,1)<65 THEN 9370
9365 PRINT "No disability benefits at age 65 or later": GOTO 9900
9370 C5=1!: RETURN
9900 END

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