

```
// LOG PRINTER
// READER MFCU1
// DATE 160410
// FORMS LINES-66
// LOG PRINTER
// LOG ON
// NOHALT
*
// CALL $RPG,F1
```

H008 008

POWER2

0001	FINPUT	IP	F	96	96	MFCU1
0002	FOUTPUT	O	F	96	96	PRINTER
0003	E			LINE	1 12 96	
0004	IINPUT	NS		47		
0005	I				1 3 LAST	
0006	C	47				SETON 01
	C*					PRINT BLOCK LETTER HEADINGS ROUTINE
0007	C	01				SETON 90
0008	C	01	90			EXCPT
0009	C	01				SETOF 90
0010	C	01				SETON 91
0011	C		ADD			TAG
0012	C	01	1			ADD X X 20
0013	C	01				MOVE LINE,X PRINT 96
0014	C	01				EXCPT
0015	C	01	91			SETOF 91
0016	C	01	X			COMP 12 69
0017	C	01	69			GOTO ADD
	C*					POWERS OF TWO CALCULATIONS ROUTINE
0018	C	N47				SETON 47
0019	C	47				MOVE LAST LAST
0020	C		N10			SETON 10
0021	C					Z-ADD1 FIRST 130
0022	C					Z-ADD0 SECOND 130
0023	C					Z-ADD0 THIRD 130
0024	C					Z-ADD0 FOURTH 130
0025	C					Z-ADD0 FIFTH 130
0026	C					Z-ADD0 SIXTH 130
0027	C		1000000			MULT 1000000 ACCUME 150
0028	C					MOVE ACCUME TEST 130
0029	C	N13				SETON 13
0030	C		START			TAG *****
0031	C					MOVE FIRST ONE 120
0032	C					MOVE SECOND TWO 120
0033	C					MOVE THIRD THREE 120
0034	C					MOVE FOURTH FOUR 120
0035	C					MOVE FIFTH FIVE 120
0036	C					MOVE SIXTH SIX 120
0037	C					EXCPT
0038	C		10			SETOF 10
0039	C		FIRST			ADD FIRST FIRST
0040	C		FIRST			COMP TEST 71
0041	C		N71FIRST			SUB TEST FIRST
0042	C		SECOND			ADD SECOND SECOND

0043	C	N711	ADD	SECOND	SECOND	
0044	C	SECOND	COMP	TEST		72
0045	C	N72	SECOND	SUB	TEST	SECOND
0046	C	THIRD	ADD	THIRD	THIRD	
0047	C	N721	ADD	THIRD	THIRD	
0048	C	THIRD	COMP	TEST		73
0049	C	N73	THIRD	SUB	TEST	THIRD
0050	C	FOURTH	ADD	FOURTH	FOURTH	
0051	C	N731	ADD	FOURTH	FOURTH	
0052	C	FOURTH	COMP	TEST		74
0053	C	N74	FOURTH	SUB	TEST	FOURTH
0054	C	FIFTH	ADD	FIFTH	FIFTH	
0055	C	N741	ADD	FIFTH	FIFTH	
0056	C	FIFTH	COMP	TEST		75
0057	C	N75	FIFTH	SUB	TEST	FIFTH
0058	C	SIXTH	ADD	SIXTH	SIXTH	
0059	C	N751	ADD	SIXTH	SIXTH	
0060	C	SIXTH	COMP	TEST		76

0061	C	71	SETON			10
0062	C	N71	SETON			20
0063	C	N72	SETON			30
0064	C	N73	SETON			40
0065	C	N74	SETON			50
0066	C	N75	SETON			60
0067	C	20	SETOF			10
0068	C	30	SETOF			1020
0069	C	40	SETOF			103020
0070	C	50	SETOF			1020
0071	C	50	SETOF			3040
0072	C	60	SETOF			102030
0073	C	60	SETOF			4050
0074	C	71	SETOF			71
0075	C	72	SETOF			72
0076	C	73	SETOF			73
0077	C	74	SETOF			74
0078	C	75	SETOF			75
0079	C	N76	SETON			LR
0080	C	76	GOTO	START		

0081	O	OUTPUT	T 33	06	LR	
0082	O					54 'END OF JOB'
0083	O	E 0106	91			
0084	O	OR 01	69			
0085	O				PRINT	96
0086	O	E 01	47 10	13		
0087	O				ONE 2	96
0088	O	E 01	47 20	13		
0089	O				ONE	96 '0 , , , '
0090	O					81 ', ,'
0091	O				TWO 2	80
0092	O	E 01	47 30	13		
0093	O				ONE	96 '0 , , , '
0094	O					81 ', ,'
0095	O				TWO	80 '0 , , , '
0096	O					65 ', ,'
0097	O				THREE 2	64
0098	O	E 01	47 40	13		
0099	O				ONE	96 '0 , , , '
0100	O					81 ', ,'

INDICATORS USED

LR 01 10 13 20 30 40 47 50 60 69 71 72 73 74 75 76 90 91

FIELD NAMES USED

STMT#	NAME	DEC	LGTH	DISP
0005	LAST		003	0102
0012	X	0	002	0164
0013	PRINT		096	0162
0021	FIRST	0	013	0171
0022	SECOND	0	013	017E
0023	THIRD	0	013	018B
0024	FOURTH	0	013	0198
0025	FIFTH	0	013	01A5
0026	SIXTH	0	013	01B2
0027	ACCUME	0	015	01C1
0028	TEST	0	013	01CE
0031	ONE	0	012	01DA
0032	TWO	0	012	01E6
0033	THREE	0	012	01F2
0034	FOUR	0	012	01FE
0035	FIVE	0	012	020A
0036	SIX	0	012	0216

LABELS USED

STMT#	NAME	TYPE
0011	ADD	TAG
0030	START	TAG

COMPILE TIME TABLES AND ARRAYS

STMT#	TABLE/	DEC	ENTRY	NUMBER OF	DTT	T/A
DEFINED	ARRAY	POS	LENGTH	ENTRIES	DISP	DISP
0003	LINE		096	0012	0217	027E

LINE

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*****
**      *           *      *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
**      *           *      *      *      *      *      *      *      *      *      *      *
```

END OF TABLE/ARRAY

CORE USAGE OF RPGII CODE

START	NAME	IF	CODE	NAME	TITLE
ADDR	OVERLAY		LENGTH		
1200			0870	RGROOT	ROOT
1AD2			0091	RGMAIN	INPUT MAINLINE
1B63			0046	RGSUBS	RECORD ID
1BA9			0026	RGSUBS	CONTROL FIELDS
1A70			005A	RGSUBS	INPUT CTRL RTN
1ACA			0008	RGSUBS	SUBSEG

1BCF	0145	\$\$MFRD	MFCU READ
1D14	0022	RGMAIN	INPUT FIELDS
1E03	0304	RGMAIN	DETAIL CALCS
1DDF	0024	RGSUBS	CONSTANTS
1D36	009D	RGSUBS	OUTPUT CTRL RTN
23A1	0043	\$\$PGRI	RESET RESULTING INDR
22F7	00AA	\$\$PGAA	TAG (FETCH)
23E4	0060	\$\$PGMC	MULTIPLY
2107	01F0	RGSUBS	EXCEPTION
1DD3	000C	RGSUBS	SUBSEG
2444	00FB	\$\$LPRT	5203 PRINT
253F	000B	RGMAIN	TOTAL OUTPUT
2567	0024	RGMAIN	LR & OVERFLOW PROCESSING
254A	001D	RGSUBS	OVERFLOW SUBSEGMENT
259C	0021	RGMAIN	CLOSE
258B	0011	RGSUBS	CONSTANTS
25BD	001F	RGSUBS	LR PROCESSING
25DC	007B	RGMAIN	OPEN

05207 POWER2 TOTAL CORE USAGE REQUIRED TO EXECUTE
TOTAL NUMBER OF LIBRARY SECTORS REQUIRED 23

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*****
**      *      *      *      **      *      *      *      *      *      *      *      *      *
**      *      *      *      **      *      *      *      *      *      *      *      *      *
**      *      **     *      **      *      *      *      *      *      *      **     **
**      *      **     *      **      *      *      *      *      *      *      **     **
**      *      **     *      **      *      *      *      *      *      *      **     **
**      *      **     *      **      *      *      *      *      *      *      **     **
*****
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
**      *      *      *      **     **     *      *      *      *      *      *      *      *
*****

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```

1
2
4
8
16
32
64
128
256
512
1,024
2,048
4,096
8,192
16,384
32,768
65,536
131,072
262,144
524,288
1,048,576
2,097,152
4,194,304
8,388,608
16,777,216
33,554,432
67,108,864
134,217,728
268,435,456
536,870,912
1,073,741,824
2,147,483,648
4,294,967,296
8,589,934,592
17,179,869,184
34,359,738,368
68,719,476,736
137,438,953,472
274,877,906,944
549,755,813,888
1,099,511,627,776
2,199,023,255,552
4,398,046,511,104
8,796,093,022,208
17,592,186,044,416
35,184,372,088,832
70,368,744,177,664
140,737,488,355,328
281,474,976,710,656

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562,949,953,421,312
1,125,899,906,842,624
2,251,799,813,685,248
4,503,599,627,370,496
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18,014,398,509,481,984
36,028,797,018,963,968
72,057,594,037,927,936
144,115,188,075,855,872
288,230,376,151,711,744
576,460,752,303,423,488
1,152,921,504,606,846,976
2,305,843,009,213,693,952
4,611,686,018,427,387,904
9,223,372,036,854,775,808
18,446,744,073,709,551,616
36,893,488,147,419,103,232
73,786,976,294,838,206,464
147,573,952,589,676,412,928
295,147,905,179,352,825,856
590,295,810,358,705,651,712
1,180,591,620,717,411,303,424
2,361,183,241,434,822,606,848
4,722,366,482,869,645,213,696
9,444,732,965,739,290,427,392
18,889,465,931,478,580,854,784
37,778,931,862,957,161,709,568
75,557,863,725,914,323,419,136
151,115,727,451,828,646,838,272
302,231,454,903,657,293,676,544
604,462,909,807,314,587,353,088
1,208,925,819,614,629,174,706,176
2,417,851,639,229,258,349,412,352
4,835,703,278,458,516,698,824,704
9,671,406,556,917,033,397,649,408
19,342,813,113,834,066,795,298,816
38,685,626,227,668,133,590,597,632
77,371,252,455,336,267,181,195,264
154,742,504,910,672,534,362,390,528
309,485,009,821,345,068,724,781,056
618,970,019,642,690,137,449,562,112
1,237,940,039,285,380,274,899,124,224
2,475,880,078,570,760,549,798,248,448
4,951,760,157,141,521,099,596,496,896
9,903,520,314,283,042,199,192,993,792
19,807,040,628,566,084,398,385,987,584
39,614,081,257,132,168,796,771,975,168
79,228,162,514,264,337,593,543,950,336
158,456,325,028,528,675,187,087,900,672
316,912,650,057,057,350,374,175,801,344
633,825,300,114,114,700,748,351,602,688
1,267,650,600,228,229,401,496,703,205,376
2,535,301,200,456,458,802,993,406,410,752
5,070,602,400,912,917,605,986,812,821,504
10,141,204,801,825,835,211,973,625,643,008
20,282,409,603,651,670,423,947,251,286,016
40,564,819,207,303,340,847,894,502,572,032
81,129,638,414,606,681,695,789,005,144,064
162,259,276,829,213,363,391,578,010,288,128
324,518,553,658,426,726,783,156,020,576,256
649,037,107,316,853,453,566,312,041,152,512
1,298,074,214,633,706,907,132,624,082,305,024
2,596,148,429,267,413,814,265,248,164,610,048
5,192,296,858,534,827,628,530,496,329,220,096
10,384,593,717,069,655,257,060,992,658,440,192
20,769,187,434,139,310,514,121,985,316,880,384

41,538,374,868,278,621,028,243,970,633,760,768
83,076,749,736,557,242,056,487,941,267,521,536
166,153,499,473,114,484,112,975,882,535,043,072
332,306,998,946,228,968,225,951,765,070,086,144
664,613,997,892,457,936,451,903,530,140,172,288
1,329,227,995,784,915,872,903,807,060,280,344,576
2,658,455,991,569,831,745,807,614,120,560,689,152
5,316,911,983,139,663,491,615,228,241,121,378,304
10,633,823,966,279,326,983,230,456,482,242,756,608
21,267,647,932,558,653,966,460,912,964,485,513,216
42,535,295,865,117,307,932,921,825,928,971,026,432
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170,141,183,460,469,231,731,687,303,715,884,105,728
340,282,366,920,938,463,463,374,607,431,768,211,456
680,564,733,841,876,926,926,749,214,863,536,422,912
1,361,129,467,683,753,853,853,498,429,727,072,845,824
2,722,258,935,367,507,707,706,996,859,454,145,691,648
5,444,517,870,735,015,415,413,993,718,908,291,383,296
10,889,035,741,470,030,830,827,987,437,816,582,766,592
21,778,071,482,940,061,661,655,974,875,633,165,533,184
43,556,142,965,880,123,323,311,949,751,266,331,066,368
87,112,285,931,760,246,646,623,899,502,532,662,132,736
174,224,571,863,520,493,293,247,799,005,065,324,265,472
348,449,143,727,040,986,586,495,598,010,130,648,530,944
696,898,287,454,081,973,172,991,196,020,261,297,061,888
1,393,796,574,908,163,946,345,982,392,040,522,594,123,776
2,787,593,149,816,327,892,691,964,784,081,045,188,247,552
5,575,186,299,632,655,785,383,929,568,162,090,376,495,104
11,150,372,599,265,311,570,767,859,136,324,180,752,990,208
22,300,745,198,530,623,141,535,718,272,648,361,505,980,416
44,601,490,397,061,246,283,071,436,545,296,723,011,960,832
89,202,980,794,122,492,566,142,873,090,593,446,023,921,664
178,405,961,588,244,985,132,285,746,181,186,892,047,843,328
356,811,923,176,489,970,264,571,492,362,373,784,095,686,656
713,623,846,352,979,940,529,142,984,724,747,568,191,373,312
1,427,247,692,705,959,881,058,285,969,449,495,136,382,746,624
2,854,495,385,411,919,762,116,571,938,898,990,272,765,493,248
5,708,990,770,823,839,524,233,143,877,797,980,545,530,986,496
11,417,981,541,647,679,048,466,287,755,595,961,091,061,972,992
22,835,963,083,295,358,096,932,575,511,191,922,182,123,945,984
45,671,926,166,590,716,193,865,151,022,383,844,364,247,891,968
91,343,852,333,181,432,387,730,302,044,767,688,728,495,783,936
182,687,704,666,362,864,775,460,604,089,535,377,456,991,567,872
365,375,409,332,725,729,550,921,208,179,070,754,913,983,135,744
730,750,818,665,451,459,101,842,416,358,141,509,827,966,271,488
1,461,501,637,330,902,918,203,684,832,716,283,019,655,932,542,976
2,923,003,274,661,805,836,407,369,665,432,566,039,311,865,085,952
5,846,006,549,323,611,672,814,739,330,865,132,078,623,730,171,904
11,692,013,098,647,223,345,629,478,661,730,264,157,247,460,343,808
23,384,026,197,294,446,691,258,957,323,460,528,314,494,920,687,616
46,768,052,394,588,893,382,517,914,646,921,056,628,989,841,375,232
93,536,104,789,177,786,765,035,829,293,842,113,257,979,682,750,464
187,072,209,578,355,573,530,071,658,587,684,226,515,959,365,500,928
374,144,419,156,711,147,060,143,317,175,368,453,031,918,731,001,856
748,288,838,313,422,294,120,286,634,350,736,906,063,837,462,003,712
1,496,577,676,626,844,588,240,573,268,701,473,812,127,674,924,007,424
2,993,155,353,253,689,176,481,146,537,402,947,624,255,349,848,014,848
5,986,310,706,507,378,352,962,293,074,805,895,248,510,699,696,029,696
11,972,621,413,014,756,705,924,586,149,611,790,497,021,399,392,059,392
23,945,242,826,029,513,411,849,172,299,223,580,994,042,798,784,118,784
47,890,485,652,059,026,823,698,344,598,447,161,988,085,597,568,237,568
95,780,971,304,118,053,647,396,689,196,894,323,976,171,195,136,475,136
191,561,942,608,236,107,294,793,378,393,788,647,952,342,390,272,950,272
383,123,885,216,472,214,589,586,756,787,577,295,904,684,780,545,900,544
766,247,770,432,944,429,179,173,513,575,154,591,809,369,561,091,801,088
1,532,495,540,865,888,858,358,347,027,150,309,183,618,739,122,183,602,176

3,064,991,081,731,777,716,716,694,054,300,618,367,237,478,244,367,204,352
6,129,982,163,463,555,433,433,388,108,601,236,734,474,956,488,734,408,704
12,259,964,326,927,110,866,866,776,217,202,473,468,949,912,977,468,817,408
24,519,928,653,854,221,733,733,552,434,404,946,937,899,825,954,937,634,816
49,039,857,307,708,443,467,467,104,868,809,893,875,799,651,909,875,269,632
98,079,714,615,416,886,934,934,209,737,619,787,751,599,303,819,750,539,264
196,159,429,230,833,773,869,868,419,475,239,575,503,198,607,639,501,078,528
392,318,858,461,667,547,739,736,838,950,479,151,006,397,215,279,002,157,056
784,637,716,923,335,095,479,473,677,900,958,302,012,794,430,558,004,314,112
1,569,275,433,846,670,190,958,947,355,801,916,604,025,588,861,116,008,628,224
3,138,550,867,693,340,381,917,894,711,603,833,208,051,177,722,232,017,256,448
6,277,101,735,386,680,763,835,789,423,207,666,416,102,355,444,464,034,512,896
12,554,203,470,773,361,527,671,578,846,415,332,832,204,710,888,928,069,025,792
25,108,406,941,546,723,055,343,157,692,830,665,664,409,421,777,856,138,051,584
50,216,813,883,093,446,110,686,315,385,661,331,328,818,843,555,712,276,103,168
100,433,627,766,186,892,221,372,630,771,322,662,657,637,687,111,424,552,206,336
200,867,255,532,373,784,442,745,261,542,645,325,315,275,374,222,849,104,412,672
401,734,511,064,747,568,885,490,523,085,290,650,630,550,748,445,698,208,825,344
803,469,022,129,495,137,770,981,046,170,581,301,261,101,496,891,396,417,650,688
1,606,938,044,258,990,275,541,962,092,341,162,602,522,202,993,782,792,835,301,376
3,213,876,088,517,980,551,083,924,184,682,325,205,044,405,987,565,585,670,602,752
6,427,752,177,035,961,102,167,848,369,364,650,410,088,811,975,131,171,341,205,504
12,855,504,354,071,922,204,335,696,738,729,300,820,177,623,950,262,342,682,411,008
25,711,008,708,143,844,408,671,393,477,458,601,640,355,247,900,524,685,364,822,016
51,422,017,416,287,688,817,342,786,954,917,203,280,710,495,801,049,370,729,644,032
102,844,034,832,575,377,634,685,573,909,834,406,561,420,991,602,098,741,459,288,064
205,688,069,665,150,755,269,371,147,819,668,813,122,841,983,204,197,482,918,576,128
411,376,139,330,301,510,538,742,295,639,337,626,245,683,966,408,394,965,837,152,256
822,752,278,660,603,021,077,484,591,278,675,252,491,367,932,816,789,931,674,304,512
1,645,504,557,321,206,042,154,969,182,557,350,504,982,735,865,633,579,863,348,609,024
3,291,009,114,642,412,084,309,938,365,114,701,009,965,471,731,267,159,726,697,218,048
6,582,018,229,284,824,168,619,876,730,229,402,019,930,943,462,534,319,453,394,436,096
13,164,036,458,569,648,337,239,753,460,458,804,039,861,886,925,068,638,906,788,872,192
26,328,072,917,139,296,674,479,506,920,917,608,079,723,773,850,137,277,813,577,744,384
52,656,145,834,278,593,348,959,013,841,835,216,159,447,547,700,274,555,627,155,488,768
105,312,291,668,557,186,697,918,027,683,670,432,318,895,095,400,549,111,254,310,977,536
210,624,583,337,114,373,395,836,055,367,340,864,637,790,190,801,098,222,508,621,955,072
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26,959,946,667,150,639,794,667,015,087,019,630,673,637,144,422,540,572,481,103,610,249,216
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862,718,293,348,820,473,429,344,482,784,628,181,556,388,621,521,298,319,395,315,527,974,912
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27,606,985,387,162,255,149,739,023,449,108,101,809,804,435,888,681,546,220,650,096,895,197,184
55,213,970,774,324,510,299,478,046,898,216,203,619,608,871,777,363,092,441,300,193,790,394,368
110,427,941,548,649,020,598,956,093,796,432,407,239,217,743,554,726,184,882,600,387,580,788,736
220,855,883,097,298,041,197,912,187,592,864,814,478,435,487,109,452,369,765,200,775,161,577,472
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883,423,532,389,192,164,791,648,750,371,459,257,913,741,948,437,809,479,060,803,100,646,309,888

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