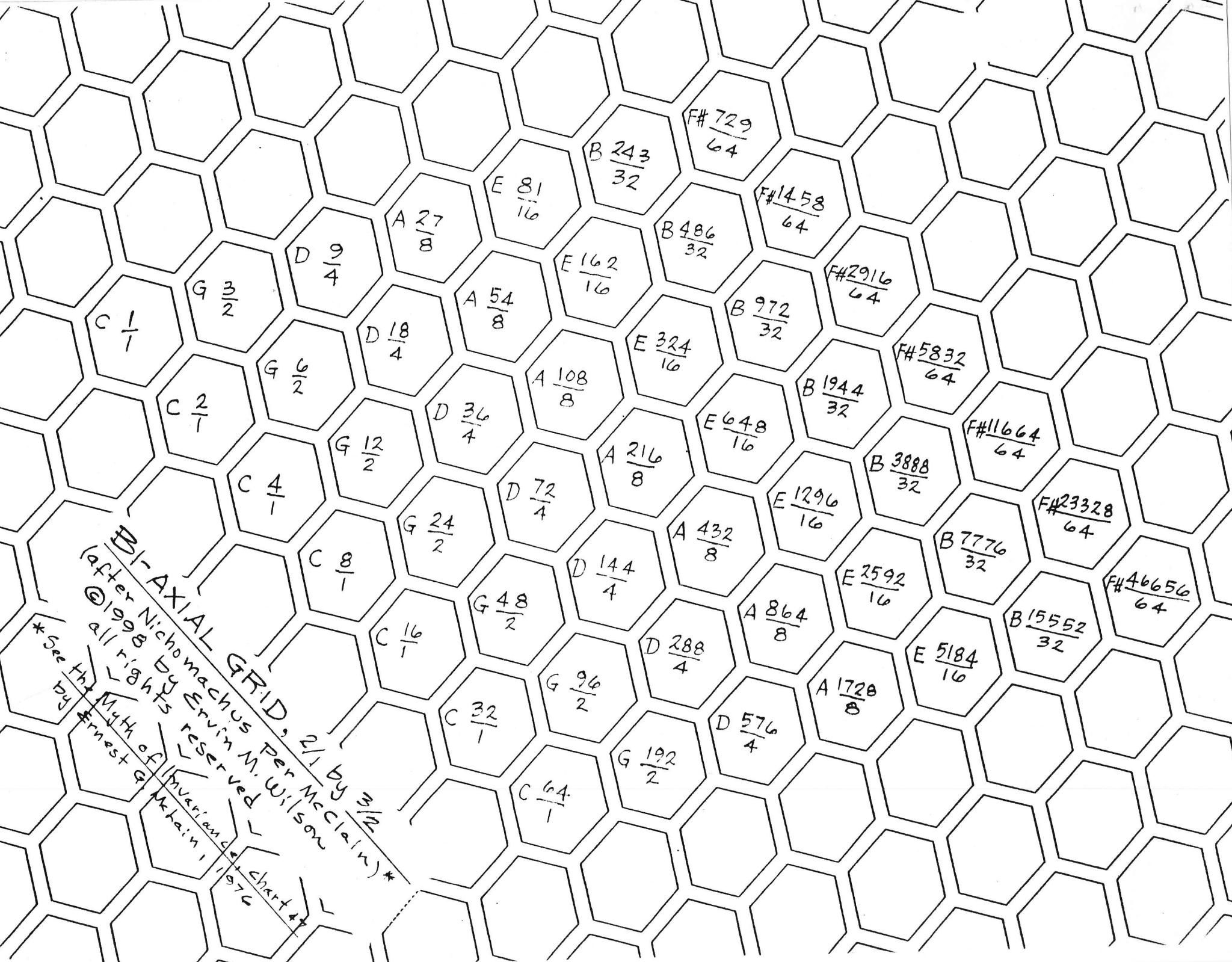


B1-AXIAL GRID, B1 BY  
Nichomachus, Per McClain  
(after Ervin M. Wilson)  
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\* See the  
by  
chart

Myth of Invariance  
Ernest M. McClain



# Pythagorean Series/Bosanquet Gral. Kbd, Shown on 8x8 Grid

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12 June 2003 - EW

.675762	.760232	.855262	.962169	1.082440	1.217745	1.369963	1.541209
+11 34 28	+13 33 22	+15 35 22	+17 32 22	+19 39 23	+21 32 23	+23 33 23	+25 328 239
23.	32.	41.	50.	6.	15.	24.	33
.711914	.800903	.901016	1.013643	1.140349	1.282892	1.443254	1.623660
+6 36 210	+8 38 23	+10 30 26	+12 32 29	+14 34 22	+16 36 23	+18 38 28	+20 36 281
27.	36.	45.	1.	10.	19.	28.	37.
.750000	.843750	.949219	1.067871	1.201355	1.351524	1.520465	1.710523
+1 31	+3 33 22	+5 35 28	+7 32 28	+9 34 24	+11 34 24	+13 33 24	+15 35 23
...31.	40.	49.	5.	14.	23.	32.	41.
.790123	.888889	1.000000	1.125000	1.265625	1.4233828	1.601807	1.802032
-4 26 3*	-2 23 32	+0 32	+2 32 23	+4 38 26	+6 36 29	+8 38 29	+10 36 29
35.	44.	0.53.	2.	18.	27.	36.	45.
.832393	.936443	1.053498	1.185185	1.333333	1.500000	1.687500	1.898438
-9 24 39	-7 24 37	-5 28 36	-3 26 33	-1 23 33	+1 32 32	+3 33 32	+5 35 32
39.	48.	4.	13.	22.	31.	40.	49.
.876925	.986540	1.109058	1.248590	1.404664	1.580247	1.777778	2.000000
-14 28 31*	-12 29 32	-10 26 30	-8 23 38	-6 20 36	-4 17 34	-2 15 32	-0 12 30
43.	52.	8.	17.	26.	35.	44.	53/0.
.9233838	1.039318	1.169233	1.315387	1.479811	1.664787	1.872885	2.106992
-19 230 319	-17 230 317	-15 22 315	-13 22 313	-11 21 311	-9 18 309	-7 17 307	-5 12 305
47.	3.	12.	21.	30.	39.	48.	4.
.973262	1.0944920	1.231785	1.385758	1.558977	1.753850	1.973081	2.19716
-24 238 322	-22 235 327	-20 232 320	-18 229 318	-16 226 316	-14 223 314	-12 220 312	-10 218 310
51.	7.	16.	25.	34.	43.	52.	8.

decimal fraction  
linear position.      scale degree - modulo 53.  
factored ratio.

Note: This applies to any series which is expressible as a chain of Fifths. In this particular case the classic moments-of-Symmetry (MOS) are; 2, 3, 5, 7, 12, 17, 29, 41, 53, 94, 143, 200, 306, and so forth.      displayed.

Ref: An Elementary Treatise on Musical Intervals and Temperament, R.H.M. Bosanquet, London 1876.

A Brief History of the Lambdama, Barbara Hero, XH 16 Autumn 1995.

Fig 2. Pythagorean Series, modulo 53/Bosanquet Gral. Kbd, Shown on 12x12 Grid

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481085	.541220	.608873	.684982	.770605	.866930	.975296	1.097208	1.234359	1.388654	1.562236	1.757516
+7 37	+19 319	+21 32	+25 323	+23 323	+23 325	+23 325	+29 325	+31 331	+35 333	+37 335	+39 339
238 50.	231 6.	234 15.	233 24.	240 33.	242.	246 51.	249 7.	252 16.	255 25.	258 34.	261 43.
.506822	.570174	.641446	.721627	.811830	.913309	1.027473	1.155907	1.300395	1.462944	1.826418	1.851539
+12 312	+14 314	+16 316	+18 318	+20 320	+22 322	+24 324	+26 326	+28 328	+30 330	+32 332	+34 334
220 1.	223 10.	226 19.	229 28.	231 37.	232 46.	235 46.	238 2.	241 11.	243 20.	246 29.	253 47.
.533936	.600677	.675762	.760232	.855262	.962169	1.082440	1.217745	1.369963	1.541209	1.733860	1.950593
+7 337	+9 339	+11 341	+13 343	+15 345	+17 347	+19 349	+21 351	+23 353	+25 355	+27 357	+29 359
212 5.	214 14.	216 23.	218 32.	220 41.	222 50.	224 59.	226 68.	228 77.	230 86.	232 95.	234 104.
.562500	.632813	.711914	.800903	.901016	1.013643	1.140349	1.282892	1.443254	1.623660	1.826618	2.054945
+2 32	+4 334	+6 336	+8 338	+10 340	+12 342	+14 344	+16 346	+18 348	+20 350	+22 352	+24 354
214 9.	218 18.	220 27.	222 36.	224 45.	226 54.	228 63.	230 72.	232 81.	234 90.	236 99.	238 108.
.592593	.666667	.750000	.843750	.949219	1.067871	1.201355	1.351524	1.520465	1.710523	1.924338	2.164881
-3 324	-1 325	+1 326	+3 327	+5 329	+7 331	+9 333	+11 335	+13 337	+15 339	+17 341.	+19 343.
213 9.	213 13.	215 22.	217 31.	219 40.	221 49.	223 58.	225 67.	227 76.	229 85.	231 94.	233 103.
.624295	.702332	.790123	.888889	.989219	1.0600000	1.1250000	1.265625	1.423828	1.601807	1.802032	2.027287
-8 327	-6 329	-4 331	-2 333	-1 335	+0 337	+2 339	+4 341	+6 343	+8 345	+10 347	+12 349.
217 17.	218 35.	220 44.	222 53.	224 62.	226 71.	228 80.	230 89.	232 98.	234 107.	236 116.	238 125.
.657694	.739905	.832393	.936443	.1053498	1.185185	1.333333	1.5000000	1.687500	1.898438	2.135742	2.402710
-13 326	-11 327	-9 328	-7 329	-5 330.	-3 331.	-1 332.	+1 333.	+3 334.	+5 335.	+7 336.	+9 338.
218 21.	220 30.	222 39.	224 48.	226 57.	228 66.	230 75.	232 84.	234 93.	236 102.	238 111.	240 120.
.692879	.779489	.8716935	.986540	.1109553	1.248590	1.404664	1.580247	1.777778	2.000000	2.250000	2.531250
-18 328	-16 329	-14 330	-12 331	-10 332	-8 333.	-6 334.	-4 335.	-2 336.	+2 337.	+4 338.	+6 339.
218 25.	220 34.	222 43.	224 52.	226 61.	228 70.	230 79.	232 88.	234 97.	236 106.	238 115.	240 124.
.729946	.821190	.923838	.1039318	.1169233	1.315387	1.479811	1.664787	1.872885	2.106996	2.370370	2.666667
-23 329	-21 330	-19 331	-17 332	-15 333	-13 334.	-11 335.	-9 336.	-7 337.	-5 338.	-3 339.	-1 340.
219 29.	220 38.	222 47.	224 56.	226 65.	228 74.	230 83.	232 92.	234 101.	236 110.	238 119.	240 128.
.768997	.865122	.973242	.1094920	.1231785	1.385758	1.558917	1.753850	1.973801	2.171916	2.479760	2.809328
-28 330	-26 331	-24 332	-22 333	-20 334.	-18 335.	-16 336.	-14 337.	-12 338.	-10 339.	-8 340.	-6 341.
220 33.	221 42.	223 51.	225 60.	227 69.	229 78.	231 87.	233 96.	235 105.	237 114.	239 123.	241 132.
.810137	.911404	1.025329	1.153496	1.297683	1.459893	1.642379	1.847677	2.078636	2.338466	2.826618	2.959621
-33 332	-31 333	-29 334.	-27 335.	-25 336.	-23 337.	-21 338.	-19 339.	-17 340.	-15 341.	-13 342.	-11 343.
221 37.	223 46.	225 55.	227 64.	229 73.	231 82.	233 91.	235 100.	237 109.	239 118.	241 127.	243 136.
.853477	.960162	1.080182	1.215205	1.367106	1.537994	1.730243	1.9460524	2.189839	2.463569	2.771515	3.117955
-38 334	-36 335.	-34 336.	-32 337.	-30 338.	-28 339.	-26 340.	-24 341.	-22 342.	-20 343.	-18 344.	-16 345.
222 37.	224 45.	226 54.	228 63.	230 72.	232 81.	234 90.	236 99.	238 108.	240 117.	242 126.	244 135.

Ref: Collected Papers of Charles Sanders Peirce, (C.1909)  
 Vol IV Pages 277-280, 578-580, Harvard University Press, 1933

22 June 2003 · EW

# Pythagorean Lambdoma with Sum- & Difference-Tones

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9 Aug 02, EW

Minus	1	3	9	27	81	243	729
1	0	2	8	26	80	242	728
2	1	1	7	25	79	241	727
4	3	1	5	23	77	239	725
8	7	5	1	19	73	235	721
16	15	13	7	11	63	227	713
32	31	29	23	5	49	211	697
64	63	61	55	37	17	179	665

Difference-Tones

Plus	1	3	9	27	81	243	729
1	2	4	10	28	82	244	730
2	3	5	11	29	83	245	731
4	5	7	13	31	85	247	733
8	9	11	17	35	89	251	737
16	17	19	25	43	97	259	745
32	33	35	41	59	113	275	761
64	65	67	73	91	145	307	793

Sum-Tones

PLUS 1 3 9 27 81 243 729 2,187 6,561 19,683 59,049 177,147

1 2 4 10 28 82 244 730 2,188 6,562 19,684 59,050 177,148

2 3 5 11 29 83 245 731 2,189 6,563 19,685 59,051 177,149

4 5 7 13 31 85 247 733 2,191 6,565 19,687 59,053 177,151

8 9 11 17 35 89 251 737 2,195 6,569 19,691 59,057 177,155

16 17 19 25 43 97 259 745 2,203 6,577 19,699 59,065 177,163

32 33 35 41 59 113 275 761 2,219 6,593 19,715 59,081 177,179

64 65 67 73 91 145 307 793 2,251 6,625 19,747 59,113 177,211

128 129 131 137 155 209 371 857 2,315 6,689 19,811 59,177 177,275

256 257 259 265 283 337 499 985 2,443 6,817 19,939 59,305 177,403

512 513 515 521 539 593 755 1,241 2,699 7,073 20,195 59,561 177,659

1,024 1,025 1,027 1,033 1,051 1,105 1,267 1,753 3,211 7,585 20,707 60,073 178,171

2,048 2,049 2,051 2,057 2,075 2,129 2,291 2,777 4,235 8,609 21,731 61,097 179,195

4,096 4,097 4,099 4,105 4,123 4,177 4,177 4,825 6,283 10,657 23,779 63,145 181,243

8,192 8,193 8,195 8,201 8,219 8,273 8,273 8,921 10,379 14,753 27,875 67,241 185,339

16,384 16,385 16,387 16,393 16,411 16,465 16,465 17,113 18,571 22,945 36,067 75,433 193,531

32,768 32,769 32,771 32,777 32,768 32,849 32,849 33,497 34,955 39,329 52,451 91,817 209,915

9 Aug 01, SW

Minus 1 3 9 27 81 243 729 2,187 6,561 19,683 59,049 177,147

1	0	2	8	26	80	242	728	2,186	6,560	19,682	59,048	177,146
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2	1	1	7	25	79	241	727	2,185	6,559	19,681	59,047	177,145
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4	3	1	5	23	77	239	725	2,183	6,557	19,679	59,045	177,143
---	---	---	---	----	----	-----	-----	-------	-------	--------	--------	---------

8	7	5	1	19	73	235	721	2,179	6,553	19,675	59,041	177,139
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16	15	13	7	11	65	227	713	2,171	6,545	19,667	59,033	177,131
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32	31	29	23	5	49	211	697	2,155	6,529	19,651	59,017	177,115
----	----	----	----	---	----	-----	-----	-------	-------	--------	--------	---------

64	63	61	55	37	17	179	665	2,123	6,497	19,619	58,985	177,083
----	----	----	----	----	----	-----	-----	-------	-------	--------	--------	---------

128	127	125	119	101	47	115	601	2,059	6,433	19,555	58,921	177,019
-----	-----	-----	-----	-----	----	-----	-----	-------	-------	--------	--------	---------

256	255	253	247	229	175	13	473	1,931	6,305	19,427	58,793	176,891
-----	-----	-----	-----	-----	-----	----	-----	-------	-------	--------	--------	---------

512	511	509	503	485	431	269	217	1,675	6,049	19,171	58,537	176,635
-----	-----	-----	-----	-----	-----	-----	-----	-------	-------	--------	--------	---------

1,024	1,023	1,021	1,015	997	943	781	295	1,163	5,537	18,659	58,025	176,123
-------	-------	-------	-------	-----	-----	-----	-----	-------	-------	--------	--------	---------

2,048	2,047	2,045	2,039	2,021	1,967	1,805	1,319	139	4,513	17,635	57,001	175,099
-------	-------	-------	-------	-------	-------	-------	-------	-----	-------	--------	--------	---------

4,096	4,095	4,093	4,087	4,069	4,015	3,853	3,367	1,909	2,465	15,587	54,953	173,051
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	--------	---------

• 8,192	8,191	8,189	8,183	8,165	8,111	7,949	7,643	6,005	1,631	11,491	50,857	168,955
---------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	--------	---------

16,384	16,383	16,381	16,375	16,357	16,303	16,141	15,655	14,197	9,823	32,99	42,665	160,763
--------	--------	--------	--------	--------	--------	--------	--------	--------	-------	-------	--------	---------

32,768	32,767	32,765	32,759	32,741	32,687	32,525	32,039	30,581	26,207	13,085	26,281	144,739
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	---------

Scooped "in broad daylight, in front of god and the natives"

$$\begin{array}{r} 14 \\ 26 \overline{) 365} \\ 26 \\ \hline 105 \\ 104 \\ \hline 1 \end{array}$$

"The men from Mars are here"  
in their horseless chariots  
Playing <sup>on</sup> stringless lyres praying

For an abundant embryo harvest  
In broad daylight.

$$\frac{2}{1} \quad \frac{1}{7} \quad \frac{8}{7}$$

$$4 \quad \frac{16}{7} \quad \frac{64}{49}$$

$$\frac{8}{1} \quad \frac{32}{7} \quad \frac{128}{49} \quad \frac{512}{343}$$

$$\frac{16}{1} \quad \frac{64}{7} \quad \frac{256}{49} \quad \frac{1024}{343} \quad \frac{4096}{2401}$$

27 JUN 01. EW

$$\frac{128}{7} \quad \frac{512}{49} \quad \frac{2048}{343} \quad \frac{8192}{2401}$$

after McClain 1976  
p. 145, chart 38

$$\frac{1024}{49} \quad \frac{4096}{343} \quad \frac{16384}{2401}$$

(1)

$$\frac{8192}{343} \quad \frac{32768}{2401}$$

A B

$A^2$  AB  $B^2$

$A^3$   $A^2B$   $AB^2$   $B^3$

$A^4$   $A^3B$   $A^2B^2$   $AB^3$   $B^4$

$A^4B$   $A^3B^2$   $A^2B^3$   $AB^4$

$A^4B^2$   $A^3B^3$   $A^2B^4$

$A^4B^3$   $A^3B^4$

$A^4B^4$

$$\frac{65,536}{2401}$$