

1/5, 1/6, 1/7, 1/8 Syntonic Comma Temperaments

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Prepared by
Farley's House of Pianos

The 1/5 Syntonic Comma Meantone Temperament

Jorgensen's Hand

The fifths have a ratio of 1.49627787

Pitch	Frequencies when A is at 440Hz Between F3 and F4	Cents Deviation
F4	351.1265401	+9.385
E	329.1811313	-2.346
E ^b	313.6672291	+14.078
D	294.0630273	+2.346
C [#]	275.6840881	-9.385
C	262.6914357	+7.039
B	246.273221	-4.693
B ^b	234.6666667	+11.731
A	220.000	0
G [#]	206.25	-11.731
G	196.5296909	+4.693
F [#]	184.2465852	-7.039
F3	175.56327	+9.385

*The 1/5 syntonic comma meantone temperament
The 5th fifths have a ratio of 1.49627787
frequencies when A=440 deviations in cents*

*F - 351.1265401 ————— + 9.385
E - 329.1811313 ————— - 2.346
E^b - 313.6672291 ————— + 14.078
D - 294.0630273 ————— + 2.346
C[#] - 275.6840881 ————— - 9.385
C - 262.6914357 ————— + 7.039
B - 246.273221 ————— - 4.693
B^b - 234.6666667 ————— + 11.731
A - 220.000 ————— zero
G[#] - 206.25 ————— - 11.731
G - 196.5296909 ————— + 4.693
F[#] - 184.2465852 ————— - 7.039
F - 175.56327 ————— + 9.385*

The 1/5 Syntonic Comma Meantone Temperament

The eleven fifths have a ratio of 1.49627787

Pitch	Frequencies when middle C is 261.6255653Hz Between F3 and F4	Cents Deviation
F4	349.7018443	+2.346
E	327.845479	-9.385
E ^b	312.3945244	+7.039
D	292.8698666	+4.693
C [#]	274.5655	-16.423
C	261.6255653	0
B	245.2739675	-11.731
B ^b	233.7145067	+4.693
A	219.1073501	-7.039
G [#]	205.413407	-18.770
G	195.7322718	-2.346
F [#]	183.4990048	-14.078
F3	174.8509221	+2.346

*The 1/5 syntonic comma meantone temperament
The eleven fifths have a ratio of 1.49627787
frequencies when middle C = 261.6255653 Hz deviations in cents*

*F - 349.7018443 ————— + 2.346
E - 327.845479 ————— - 9.385
E^b - 312.3945244 ————— + 7.039
D - 292.8698666 ————— + 4.693
C[#] - 274.5655 ————— - 16.423
C - 261.6255653 ————— zero
B - 245.2739675 ————— - 11.731
B^b - 233.7145067 ————— + 4.693
A - 219.1073501 ————— - 7.039
G[#] - 205.413407 ————— - 18.770
G - 195.7322718 ————— - 2.346
F[#] - 183.4990048 ————— - 14.078
F - 174.8509221 ————— + 2.346*

The 1/6 Syntonic Comma Meantone Temperament

The eleven fifths have a ratio of 1.496897583

Jorgensen's Hand

Pitch	Frequencies when A is at 440Hz	Cents Deviation
F4	350.5454379	+6.518
E	329.3174682	-1.629
E ^b	312.8888889	+9.776
D	293.9412857	+1.629
C [#]	276.1410919	-6.518
C	262.3653094	+4.888
B	246.4772611	-3.259
B ^b	234.1813107	+8.147
A	220.000	0
G [#]	206.6774665	-8.147
G	196.3669987	+3.259
F [#]	184.4756081	-4.888
F3	175.272719	+6.518

*The 1/6 syntonic comma meantone temperament
The eleven fifths have a ratio of 1.496897583*

frequencies when A=440 *deviations in cents*

F	350.5454379	+6.518
E	329.3174682	-1.629
E ^b	312.8888889	+9.776
D	293.9412857	+1.629
C [#]	276.1410919	-6.518
C	262.3653094	+4.888
B	246.4772611	-3.259
B ^b	234.1813107	+8.147
A	220.000	zero
G [#]	206.6774665	-8.147
G	196.3669987	+3.259
F [#]	184.4756081	-4.888
F	175.272719	+6.518

The 1/6 Syntonic Comma Meantone Temperament

The eleven fifths have a ratio of 1.496897583

Pitch	Frequencies when C is at C=261.6255653Hz Between F3 and F4	Cents Deviation
F4	349.5570683	+1.629
E	328.3889512	-6.518
E ^b	312.0066926	+4.888
D	293.1125125	-3.259
C [#]	275.3625068	-11.406
C	261.6255653	0
B	245.7823137	-8.147
B ^b	233.521032	+3.259
A	219.3797058	-4.888
G [#]	206.0947354	-13.035
G	195.8133381	+1.629
F [#]	183.9554756	-9.776
F3	174.7785342	+1.629

*The 1/6 syntonic comma meantone temperament
The eleven fifths have a ratio of 1.496897583*

frequencies when middle C=261.6255653 *deviations in cents*

F	349.5570683	+1.629
E	328.3889512	-6.518
E ^b	312.0066926	+4.888
D	293.1125125	-3.259
C [#]	275.3625068	-11.406
C	261.6255653	zero
B	245.7823137	-8.147
B ^b	233.521032	+3.259
A	219.3797058	-4.888
G [#]	206.0947354	-13.035
G	195.8133381	+1.629
F [#]	183.9554756	-9.776
F	174.7785342	+1.629

The 1/7 Syntonic Comma Meantone Temperament

Modified by averaging G# between C# and Eb. G# is also averaged between E and C. The ratio of ten fifths is 1.497340392

Jorgensen's Hand

Pitch	Frequencies when A is at 440Hz Between F3 and F4	Cents Deviation
F4	350.1309539	+4.469
E	329.4148863	-1.117
E ^b	312.3341144	+6.704
D	293.8543583	+1.117
C#	276.467987	-4.469
C	262.1326099	+3.352
B	246.6231075	-2.235
B ^b	233.8352426	+5.587
A	220.000	0
G#	207.7864094	+1.117
G	196.2508724	+2.235
F#	184.6393702	-3.352
F3	175.0654769	+4.469

*The 1/7 syntonic comma meantone temperament modified
by averaging G sharp between C sharp and E flat,
G sharp is also averaged between E and C.
The ratio of ten fifths is 1.497340392*

frequencies when A = 440 Hz

	deviations in cents
F - 350.1309539	+4.469
E - 329.4148863	-1.117
E ^b - 312.3341144	+6.704
D - 293.8543583	+1.117
C# - 276.467987	-4.469
C - 262.1326099	+3.352
B - 246.6231075	-2.235
B ^b - 233.8352426	+5.587
A - 220.000	zero
G# - 207.7864094	+1.117
G - 196.2508724	+2.235
F# - 184.6393702	-3.352
F - 175.0654769	+4.469

The 1/7 Syntonic Comma Modified Meantone Temperament

G# is averaged between E and C and between C# and Eb. The ratio of ten fifths is 1.497340392

Pitch	Frequencies when C is 261.6255653Hz Between F3 and F4	Cents Deviation
F4	349.4536936	+1.117
E	329.7776972	-4.469
E ^b	311.7299647	+3.352
D	293.2859541	-2.235
C#	275.9332134	-7.821
C	261.6255653	0
B	246.146063	-5.587
B ^b	233.3829338	+2.235
A	219.5744528	-3.352
G#	207.384487	-2.235
G	195.8712633	+1.117
F#	184.2822212	-6.704
F3	174.7268468	+1.117

*The 1/7 syntonic comma modified meantone temperament,
G sharp is averaged between E and C and also between C sharp and E flat.
The ratio of ten fifths is 1.497340392*

frequencies when C = 261.6255653 Hz

	deviations in cents
F - 349.4536936	+1.117
E - 329.7776972	-4.469
E ^b - 311.7299647	+3.352
D - 293.2859541	-2.235
C# - 275.9332134	-7.821
C - 261.6255653	zero
B - 246.146063	-5.587
B ^b - 233.3829338	+2.235
A - 219.5744528	-3.352
G# - 207.384487	-2.235
G - 195.8712633	+1.117
F# - 184.2822212	-6.704
F - 174.7268468	+1.117

1/8 Syntonic Comma Well Temperament

The fifths are each narrowed by 2.688 cents and have a ratio of 1.497672585

Jorgensen's Hand

Pitch	Frequencies when A is at 440Hz Between F3 and F4	Cents Deviation
F4	349.8204125	+2.933
E	329.4879687	-0.733
E ^b	311.9186791	+4.400
D	293.7891796	+0.733
C [#]	276.7134122	-2.933
C	261.9582207	+2.200
B	246.7325489	-1.467
B ^b	233.5760272	+3.666
A	220.000	0
G [#]	207.2130457	-3.666
G	196.1638228	+1.467
F [#]	184.7622872	-2.200
F3	174.9102062	+2.933

1/8 syntonic comma well temperament
the fifths are each narrowed by 2.688 cents
the fifths have a ratio of 1.497672585

frequencies when A is at 440 Hz
between F3 and F4

	cents deviation	
F - 349.8204125	+2.9	+2.933
E - 329.4879687	-0.7	-0.733
E ^b - 311.9186791	+4.4	+4.400
D - 293.7891796	+0.7	+0.733
C [#] - 276.7134122	-2.9	-2.933
C - 261.9582207	+2.2	+2.200
B - 246.7325489	-1.5	-1.467
B ^b - 233.5760272	+3.6	+3.666
A - 220.000	00	zero
G [#] - 207.2130457	-3.5	-3.666
G - 196.1638228	+1.5	+1.467
F [#] - 184.7622872	-2.2	-2.200
F - 174.9102062	+2.9	+2.933

1/8 Syntonic Well Temperament when middle C is at 261.6255653Hz

Pitch	Frequencies when C is at 261.6255653Hz Between F3 and F4	Cents Deviation
F4	349.3761826	+0.733
E	329.0695586	-2.933
E ^b	311.5225799	+2.200
D	293.4161027	+1.467
C [#]	276.3620195	-5.133
C	261.6255653	0
B	246.4192282	-3.666
B ^b	233.2794138	+1.467
A	219.7206265	-2.200
G [#]	206.94991	-5.866
G	195.9147183	+0.733
F [#]	184.5276613	-4.400
F3	174.6880913	+0.733

1/8 syntonic well temperament when middle C
is at 261.6255653 Hz,

frequency

	deviations in cents
F - 349.3761826	+0.733
E - 329.0695586	-2.933
E ^b - 311.5225799	+2.200
D - 293.4161027	+1.467
C [#] - 276.3620195	-5.133
C - 261.6255653	zero
B - 246.4192282	-3.666
B ^b - 233.2794138	+1.467
A - 219.7206265	-2.200
G [#] - 206.94991	-5.866
G - 195.9147183	+0.733
F [#] - 184.5276613	-4.400
F - 174.6880913	+0.733