Physics of Music - Notes

Tuning

Frequencies for equal-tempered scale, $A_4 = 440 \text{ Hz}$

Other tuning choices, A₄ = 432 434 436 438 440 442 444 446

Speed of Sound = 345 m/s = 1130 ft/s = 770 miles/hr More about Speed of Sound

("Middle C" is C₄)

Note	Frequency (Hz)	Wavelength (cm)
C ₀	16.35	2109.89
$C^{\#}_{0}/D^{b}_{0}$	17.32	1991.47
D_0	18.35	1879.69
$D^{\#}_{0}/E^{b}_{0}$	19.45	1774.20
E ₀	20.60	1674.62
F ₀	21.83	1580.63
$F^{\#}_{0}/G^{b}_{0}$	23.12	1491.91
G ₀	24.50	1408.18
$G^{\#}_{0}/A^{b}_{0}$	25.96	1329.14
A ₀	27.50	1254.55
$A^{\#}_{0}/B^{b}_{0}$	29.14	1184.13
B_0	30.87	1117.67
C ₁	32.70	1054.94
$C^{\#}_{1}/D^{b}_{1}$	34.65	995.73
D ₁	36.71	939.85
$D^{\#}_{1}/E^{b}_{1}$	38.89	887.10
E ₁	41.20	837.31
F ₁	43.65	790.31
$F^{\#}_{1}/G^{b}_{1}$	46.25	745.96
G ₁	49.00	704.09
$G^{\#}_{1}/A^{b}_{1}$	51.91	664.57
A ₁	55.00	627.27

B1 61.74 558.84 C2 65.41 527.47 C#2/Db2 69.30 497.87 D2 73.42 469.92 D#2/Eb2 77.78 443.55 E2 82.41 418.65 F2 87.31 395.16 F#2/Gb2 92.50 372.98 G2 98.00 352.04 G#2/Ab2 103.83 332.29 A2 110.00 313.64 A#2/Bb2 116.54 296.03 B2 123.47 279.42 C3 130.81 263.74 C#3/Db3 138.59 248.93 D3 146.83 234.96 D#3/Eb3 155.56 221.77 E3 164.81 209.33 F3 174.61 197.58 F#3/Gb3 185.00 186.49 G3 196.00 176.02 G#3/Ab3 207.65 166.14 A3 220.00 156.82 <tr< th=""><th>A#1/Bb1</th><th>59 27</th><th>502.07</th></tr<>	A#1/Bb1	59 27	502.07
C2 65.41 527.47 C**2/D**2 69.30 497.87 D2 73.42 469.92 D**2/E**b*2 77.78 443.55 E2 82.41 418.65 F2 87.31 395.16 F**2/G**b*2 92.50 372.98 G2 98.00 352.04 G**2/A**b*2 103.83 332.29 A2 110.00 313.64 A**2/B**b*2 116.54 296.03 B2 123.47 279.42 C3 130.81 263.74 C**3/D**3 138.59 248.93 D3 146.83 234.96 D**3/E**3 155.56 221.77 E3 164.81 209.33 F3 174.61 197.58 F**3/G**3 185.00 186.49 G3 196.00 176.02 G**3/A**3 207.65 166.14 A3 220.00 156.82 A**3/B**3 233.08		58.27	592.07
C#2/Db2 69.30 497.87 D2 73.42 469.92 D#2/Eb2 77.78 443.55 E2 82.41 418.65 F2 87.31 395.16 F#2/Gb2 92.50 372.98 G2 98.00 352.04 G#2/Ab2 103.83 332.29 A2 110.00 313.64 A#2/Bb2 116.54 296.03 B2 123.47 279.42 C3 130.81 263.74 C#3/Db3 138.59 248.93 D3 146.83 234.96 D#3/Eb3 155.56 221.77 E3 164.81 209.33 F3 174.61 197.58 F#3/Gb3 185.00 186.49 G3 196.00 176.02 G#3/Ab3 207.65 166.14 A3 220.00 156.82 A#3/Bb3 233.08 148.02 B3 246.94 139.71			
D2 73.42 469.92 D*2/E*b*2 77.78 443.55 E2 82.41 418.65 F2 87.31 395.16 F*2/G*b*2 92.50 372.98 G2 98.00 352.04 G*2/A*b*2 103.83 332.29 A2 110.00 313.64 A*2/B*b*2 116.54 296.03 B2 123.47 279.42 C3 130.81 263.74 C*3/D*3 138.59 248.93 D3 146.83 234.96 D*3/E*b*3 155.56 221.77 E3 164.81 209.33 F3 174.61 197.58 F*3/G*b*3 185.00 186.49 G3 196.00 176.02 G*3/A*b*3 207.65 166.14 A3 220.00 156.82 A*3/B*b*3 233.08 148.02 B3 246.94 139.71 C4 261.63 131.87 <td></td> <td></td> <td></td>			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			469.92
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$D^{\#}_2/E^b_2$	77.78	443.55
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	E ₂	82.41	418.65
$\begin{array}{ c c c c c c }\hline G_2 & 98.00 & 352.04 \\\hline G_{-2}^2/A^b_2 & 103.83 & 332.29 \\\hline A_2 & 110.00 & 313.64 \\\hline A_{-2}^2/B^b_2 & 116.54 & 296.03 \\\hline B_2 & 123.47 & 279.42 \\\hline C_3 & 130.81 & 263.74 \\\hline C_{-3}^3/D^b_3 & 138.59 & 248.93 \\\hline D_3 & 146.83 & 234.96 \\\hline D_{-3}^3/E^b_3 & 155.56 & 221.77 \\\hline E_3 & 164.81 & 209.33 \\\hline F_3 & 174.61 & 197.58 \\\hline F_{-3}^3/G^b_3 & 185.00 & 186.49 \\\hline G_3 & 196.00 & 176.02 \\\hline G_{-3}^4/A^b_3 & 207.65 & 166.14 \\\hline A_3 & 220.00 & 156.82 \\\hline A_{-3}^4/B^b_3 & 233.08 & 148.02 \\\hline B_3 & 246.94 & 139.71 \\\hline C_4 & 261.63 & 131.87 \\\hline C_{-4}^4/D^b_4 & 277.18 & 124.47 \\\hline D_4 & 293.66 & 117.48 \\\hline D_{-4}^4/E^b_4 & 311.13 & 110.89 \\\hline E_4 & 329.63 & 104.66 \\\hline F_4 & 349.23 & 98.79 \\\hline F_{-4}^4/G^b_4 & 369.99 & 93.24 \\\hline G_4 & 392.00 & 88.01 \\\hline G_{-4}^4/A^b_4 & 415.30 & 83.07 \\\hline A_4 & 440.00 & 78.41 \\\hline \end{array}$		87.31	395.16
$\begin{array}{ c c c c c c }\hline G^{\#}_{2}/A^{b}_{2} & 103.83 & 332.29\\\hline A_{2} & 110.00 & 313.64\\\hline A^{\#}_{2}/B^{b}_{2} & 116.54 & 296.03\\\hline B_{2} & 123.47 & 279.42\\\hline C_{3} & 130.81 & 263.74\\\hline C^{\#}_{3}/D^{b}_{3} & 138.59 & 248.93\\\hline D_{3} & 146.83 & 234.96\\\hline D^{\#}_{3}/E^{b}_{3} & 155.56 & 221.77\\\hline E_{3} & 164.81 & 209.33\\\hline F_{3} & 174.61 & 197.58\\\hline F^{\#}_{3}/G^{b}_{3} & 185.00 & 186.49\\\hline G_{3} & 196.00 & 176.02\\\hline G^{\#}_{3}/A^{b}_{3} & 207.65 & 166.14\\\hline A_{3} & 220.00 & 156.82\\\hline A^{\#}_{3}/B^{b}_{3} & 233.08 & 148.02\\\hline B_{3} & 246.94 & 139.71\\\hline C_{4} & 261.63 & 131.87\\\hline C^{\#}_{4}/D^{b}_{4} & 277.18 & 124.47\\\hline D_{4} & 293.66 & 117.48\\\hline D^{\#}_{4}/E^{b}_{4} & 311.13 & 110.89\\\hline E_{4} & 329.63 & 104.66\\\hline F_{4} & 349.23 & 98.79\\\hline F^{\#}_{4}/G^{b}_{4} & 369.99 & 93.24\\\hline G_{4} & 392.00 & 88.01\\\hline G^{\#}_{4}/A^{b}_{4} & 415.30 & 83.07\\\hline A_{4} & 440.00 & 78.41\\\hline \end{array}$	F#2/Gb2	92.50	372.98
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	G ₂	98.00	352.04
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$G^{\#}_{2}/A^{b}_{2}$	103.83	332.29
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	A ₂	110.00	313.64
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$A^{\#}_2/B^b_2$	116.54	296.03
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B ₂	123.47	279.42
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	C ₃	130.81	263.74
$\begin{array}{ c c c c c c } \hline D^{\#}_{3}/E^{b}_{3} & 155.56 & 221.77 \\ \hline E_{3} & 164.81 & 209.33 \\ \hline F_{3} & 174.61 & 197.58 \\ \hline F^{\#}_{3}/G^{b}_{3} & 185.00 & 186.49 \\ \hline G_{3} & 196.00 & 176.02 \\ \hline G^{\#}_{3}/A^{b}_{3} & 207.65 & 166.14 \\ \hline A_{3} & 220.00 & 156.82 \\ \hline A^{\#}_{3}/B^{b}_{3} & 233.08 & 148.02 \\ \hline B_{3} & 246.94 & 139.71 \\ \hline C_{4} & 261.63 & 131.87 \\ \hline C^{\#}_{4}/D^{b}_{4} & 277.18 & 124.47 \\ \hline D_{4} & 293.66 & 117.48 \\ \hline D^{\#}_{4}/E^{b}_{4} & 311.13 & 110.89 \\ \hline E_{4} & 329.63 & 104.66 \\ \hline F_{4} & 349.23 & 98.79 \\ \hline F^{\#}_{4}/G^{b}_{4} & 369.99 & 93.24 \\ \hline G_{4} & 392.00 & 88.01 \\ \hline G^{\#}_{4}/A^{b}_{4} & 415.30 & 83.07 \\ \hline A_{4} & 440.00 & 78.41 \\ \hline \end{array}$	C#3/Db3	138.59	248.93
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D ₃	146.83	234.96
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D#3/Eb3	155.56	221.77
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	E ₃	164.81	209.33
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	F ₃	174.61	197.58
$\begin{array}{ c c c c c c }\hline G^{\#}_{3}/A^{b}_{3} & 207.65 & 166.14\\\hline A_{3} & 220.00 & 156.82\\\hline A^{\#}_{3}/B^{b}_{3} & 233.08 & 148.02\\\hline B_{3} & 246.94 & 139.71\\\hline C_{4} & 261.63 & 131.87\\\hline C^{\#}_{4}/D^{b}_{4} & 277.18 & 124.47\\\hline D_{4} & 293.66 & 117.48\\\hline D^{\#}_{4}/E^{b}_{4} & 311.13 & 110.89\\\hline E_{4} & 329.63 & 104.66\\\hline F_{4} & 349.23 & 98.79\\\hline F^{\#}_{4}/G^{b}_{4} & 369.99 & 93.24\\\hline G_{4} & 392.00 & 88.01\\\hline G^{\#}_{4}/A^{b}_{4} & 415.30 & 83.07\\\hline A_{4} & 440.00 & 78.41\\\hline \end{array}$	F#3/Gb3	185.00	186.49
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	G ₃	196.00	176.02
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$G^{\#}_{3}/A^{b}_{3}$	207.65	166.14
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	A ₃	220.00	156.82
$\begin{array}{ c c c c c c }\hline C_4 & 261.63 & 131.87\\ \hline C_{4}'/D_{4}^b & 277.18 & 124.47\\ \hline D_4 & 293.66 & 117.48\\ \hline D_{4}'/E_{4}^b & 311.13 & 110.89\\ \hline E_4 & 329.63 & 104.66\\ \hline F_4 & 349.23 & 98.79\\ \hline F_{4}'/G_{4}^b & 369.99 & 93.24\\ \hline G_4 & 392.00 & 88.01\\ \hline G_{4}'/A_{4}^b & 415.30 & 83.07\\ \hline A_4 & 440.00 & 78.41\\ \hline \end{array}$	$A^{\#}_{3}/B^{b}_{3}$	233.08	148.02
$\begin{array}{ c c c c c c }\hline C^{\#}_{4}/D^{b}_{4} & 277.18 & 124.47\\\hline D_{4} & 293.66 & 117.48\\\hline D^{\#}_{4}/E^{b}_{4} & 311.13 & 110.89\\\hline E_{4} & 329.63 & 104.66\\\hline F_{4} & 349.23 & 98.79\\\hline F^{\#}_{4}/G^{b}_{4} & 369.99 & 93.24\\\hline G_{4} & 392.00 & 88.01\\\hline G^{\#}_{4}/A^{b}_{4} & 415.30 & 83.07\\\hline A_{4} & 440.00 & 78.41\\\hline \end{array}$	В3	246.94	139.71
$\begin{array}{ c c c c c c }\hline D_4 & 293.66 & 117.48 \\ \hline D_{-4}^{\#}/E_{-4}^{b} & 311.13 & 110.89 \\ \hline E_4 & 329.63 & 104.66 \\ \hline F_4 & 349.23 & 98.79 \\ \hline F_{-4}^{\#}/G_{-4}^{b} & 369.99 & 93.24 \\ \hline G_4 & 392.00 & 88.01 \\ \hline G_{-4}^{\#}/A_{-4}^{b} & 415.30 & 83.07 \\ \hline A_4 & 440.00 & 78.41 \\ \hline \end{array}$	C ₄	261.63	131.87
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C#4/Db4	277.18	124.47
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	D ₄	293.66	117.48
F4 349.23 98.79 F#4/Gb4 369.99 93.24 G4 392.00 88.01 G#4/Ab4 415.30 83.07 A4 440.00 78.41	D#4/Eb4	311.13	110.89
F#4/Gb4 369.99 93.24 G4 392.00 88.01 G#4/Ab4 415.30 83.07 A4 440.00 78.41	E ₄	329.63	104.66
	F ₄	349.23	98.79
G#4/Ab4 415.30 83.07 A4 440.00 78.41	F#4/Gb4	369.99	93.24
A ₄ 440.00 78.41	G ₄	392.00	88.01
	G#4/Ab4	415.30	83.07
A [#] ₄ /B ^b ₄ 466.16 74.01	A ₄	440.00	78.41
	A#4/Bb4	466.16	74.01

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B ₄	493.88	69.85
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			
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$\begin{array}{ c c c c c }\hline C_6 & 1046.50 & 32.97\\\hline C_{-6}^{\#}/D_{-6}^{\#} & 1108.73 & 31.12\\\hline D_6 & 1174.66 & 29.37\\\hline D_{-6}^{\#}/E_{-6}^{\#} & 1244.51 & 27.72\\\hline E_6 & 1318.51 & 26.17\\\hline F_6 & 1396.91 & 24.70\\\hline F_{-6}^{\#}/G_{-6}^{\#} & 1479.98 & 23.31\\\hline G_6 & 1567.98 & 22.00\\\hline G_{-6}^{\#}/A_{-6}^{\#} & 1661.22 & 20.77\\\hline A_6 & 1760.00 & 19.60\\\hline A_{-6}^{\#}/B_{-6}^{\#} & 1864.66 & 18.50\\\hline B_6 & 1975.53 & 17.46\\\hline C_7 & 2093.00 & 16.48\\\hline C_{-7}^{\#}/D_{-7}^{\#} & 2217.46 & 15.56\\\hline D_7 & 2349.32 & 14.69\\\hline D_{-7}^{\#}/E_{-7}^{\#} & 2489.02 & 13.86\\\hline E_7 & 2637.02 & 13.08\\\hline F_7 & 2793.83 & 12.35\\\hline F_{-7}^{\#}/G_{-7}^{\#} & 2959.96 & 11.66\\\hline G_7 & 3135.96 & 11.00\\\hline G_{-7}^{\#}/A_{-7}^{\#} & 3322.44 & 10.38\\\hline A_7 & 3520.00 & 9.80\\\hline A_{-7}^{\#}/B_{-7}^{\#} & 3729.31 & 9.25\\\hline \end{array}$	_		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-		
$\begin{array}{ c c c c c c }\hline D_6 & 1174.66 & 29.37\\ \hline D_6'/E^b_6 & 1244.51 & 27.72\\ \hline E_6 & 1318.51 & 26.17\\ \hline F_6 & 1396.91 & 24.70\\ \hline F_{6}'/G^b_6 & 1479.98 & 23.31\\ \hline G_6 & 1567.98 & 22.00\\ \hline G_{6}'/A^b_6 & 1661.22 & 20.77\\ \hline A_6 & 1760.00 & 19.60\\ \hline A_{6}'/B^b_6 & 1864.66 & 18.50\\ \hline B_6 & 1975.53 & 17.46\\ \hline C_7 & 2093.00 & 16.48\\ \hline C_{7}'/D^b_7 & 2217.46 & 15.56\\ \hline D_7 & 2349.32 & 14.69\\ \hline D_{7}/E^b_7 & 2489.02 & 13.86\\ \hline E_7 & 2637.02 & 13.08\\ \hline F_7 & 2793.83 & 12.35\\ \hline F_{7}/G^b_7 & 2959.96 & 11.66\\ \hline G_7 & 3135.96 & 11.00\\ \hline G_{7}'/A^b_7 & 3322.44 & 10.38\\ \hline A_7 & 3520.00 & 9.80\\ \hline A_{7}'/B^b_7 & 3729.31 & 9.25\\ \hline \end{array}$		1046.50	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	C#6/Db6		
$\begin{array}{ c c c c c c }\hline E_6 & 1318.51 & 26.17\\\hline F_6 & 1396.91 & 24.70\\\hline F_{6}^{\#}/G^{b}_{6} & 1479.98 & 23.31\\\hline G_6 & 1567.98 & 22.00\\\hline G_{6}^{\#}/A^{b}_{6} & 1661.22 & 20.77\\\hline A_6 & 1760.00 & 19.60\\\hline A_{6}^{\#}/B^{b}_{6} & 1864.66 & 18.50\\\hline B_6 & 1975.53 & 17.46\\\hline C_7 & 2093.00 & 16.48\\\hline C_{7}^{\#}/D^{b}_{7} & 2217.46 & 15.56\\\hline D_7 & 2349.32 & 14.69\\\hline D_{7}^{\#}/E^{b}_{7} & 2489.02 & 13.86\\\hline E_7 & 2637.02 & 13.08\\\hline F_7 & 2793.83 & 12.35\\\hline F_{7}^{\#}/G^{b}_{7} & 2959.96 & 11.66\\\hline G_7 & 3135.96 & 11.00\\\hline G_{7}^{\#}/A^{b}_{7} & 3322.44 & 10.38\\\hline A_7 & 3520.00 & 9.80\\\hline A_{7}^{\#}/B^{b}_{7} & 3729.31 & 9.25\\\hline \end{array}$			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D#6/Eb6	1244.51	27.72
$\begin{array}{ c c c c c }\hline F_{6}^{\#}/G^{b}_{6} & 1479.98 & 23.31\\\hline G_{6} & 1567.98 & 22.00\\\hline G_{6}^{\#}/A^{b}_{6} & 1661.22 & 20.77\\\hline A_{6} & 1760.00 & 19.60\\\hline A_{6}^{\#}/B^{b}_{6} & 1864.66 & 18.50\\\hline B_{6} & 1975.53 & 17.46\\\hline C_{7} & 2093.00 & 16.48\\\hline C_{7}^{\#}/D^{b}_{7} & 2217.46 & 15.56\\\hline D_{7} & 2349.32 & 14.69\\\hline D_{7}^{\#}/E^{b}_{7} & 2489.02 & 13.86\\\hline E_{7} & 2637.02 & 13.08\\\hline F_{7} & 2793.83 & 12.35\\\hline F_{7}^{\#}/G^{b}_{7} & 2959.96 & 11.66\\\hline G_{7} & 3135.96 & 11.00\\\hline G_{7}^{\#}/A^{b}_{7} & 3322.44 & 10.38\\\hline A_{7} & 3520.00 & 9.80\\\hline A_{7}^{\#}/B^{b}_{7} & 3729.31 & 9.25\\\hline \end{array}$	E ₆		26.17
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	_	1396.91	24.70
$\begin{array}{ c c c c c c }\hline G^{\#}_{6}/A^{b}_{6} & 1661.22 & 20.77\\\hline A_{6} & 1760.00 & 19.60\\\hline A^{\#}_{6}/B^{b}_{6} & 1864.66 & 18.50\\\hline B_{6} & 1975.53 & 17.46\\\hline C_{7} & 2093.00 & 16.48\\\hline C^{\#}_{7}/D^{b}_{7} & 2217.46 & 15.56\\\hline D_{7} & 2349.32 & 14.69\\\hline D^{\#}_{7}/E^{b}_{7} & 2489.02 & 13.86\\\hline E_{7} & 2637.02 & 13.08\\\hline F_{7} & 2793.83 & 12.35\\\hline F^{\#}_{7}/G^{b}_{7} & 2959.96 & 11.66\\\hline G_{7} & 3135.96 & 11.00\\\hline G^{\#}_{7}/A^{b}_{7} & 3322.44 & 10.38\\\hline A_{7} & 3520.00 & 9.80\\\hline A^{\#}_{7}/B^{b}_{7} & 3729.31 & 9.25\\\hline \end{array}$	F#6/Gb6	1479.98	23.31
$\begin{array}{ c c c c c c }\hline A_6 & 1760.00 & 19.60 \\ \hline A_6'/B^b_6 & 1864.66 & 18.50 \\ \hline B_6 & 1975.53 & 17.46 \\ \hline C_7 & 2093.00 & 16.48 \\ \hline C_7'/D^b_7 & 2217.46 & 15.56 \\ \hline D_7 & 2349.32 & 14.69 \\ \hline D_7'/E^b_7 & 2489.02 & 13.86 \\ \hline E_7 & 2637.02 & 13.08 \\ \hline F_7 & 2793.83 & 12.35 \\ \hline F_7'/G^b_7 & 2959.96 & 11.66 \\ \hline G_7 & 3135.96 & 11.00 \\ \hline G_7'/A^b_7 & 3322.44 & 10.38 \\ \hline A_7 & 3520.00 & 9.80 \\ \hline A_7'/B^b_7 & 3729.31 & 9.25 \\ \hline \end{array}$		1567.98	22.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	G#6/Ab6	1661.22	20.77
$\begin{array}{ c c c c c c }\hline B_6 & 1975.53 & 17.46 \\\hline C_7 & 2093.00 & 16.48 \\\hline C_{7}^{\#}/D^b{}_7 & 2217.46 & 15.56 \\\hline D_7 & 2349.32 & 14.69 \\\hline D_{7}^{\#}/E^b{}_7 & 2489.02 & 13.86 \\\hline E_7 & 2637.02 & 13.08 \\\hline F_7 & 2793.83 & 12.35 \\\hline F_{7}^{\#}/G^b{}_7 & 2959.96 & 11.66 \\\hline G_7 & 3135.96 & 11.00 \\\hline G_{7}^{\#}/A^b{}_7 & 3322.44 & 10.38 \\\hline A_7 & 3520.00 & 9.80 \\\hline A_{7}^{\#}/B^b{}_7 & 3729.31 & 9.25 \\\hline \end{array}$	A ₆	1760.00	19.60
$\begin{array}{ c c c c c c }\hline C_7 & 2093.00 & 16.48 \\ \hline C_7^{\#}/D^b_7 & 2217.46 & 15.56 \\ \hline D_7 & 2349.32 & 14.69 \\ \hline D_7^{\#}/E^b_7 & 2489.02 & 13.86 \\ \hline E_7 & 2637.02 & 13.08 \\ \hline F_7 & 2793.83 & 12.35 \\ \hline F_7^{\#}/G^b_7 & 2959.96 & 11.66 \\ \hline G_7 & 3135.96 & 11.00 \\ \hline G_7^{\#}/A^b_7 & 3322.44 & 10.38 \\ \hline A_7 & 3520.00 & 9.80 \\ \hline A_7^{\#}/B^b_7 & 3729.31 & 9.25 \\ \hline \end{array}$	A#6/Bb6	1864.66	18.50
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	В6	1975.53	17.46
$\begin{array}{ c c c c c c }\hline D_7 & 2349.32 & 14.69 \\ \hline D_{7}^{\#}/E_{7}^{b} & 2489.02 & 13.86 \\ \hline E_7 & 2637.02 & 13.08 \\ \hline F_7 & 2793.83 & 12.35 \\ \hline F_{7}^{\#}/G_{7}^{b} & 2959.96 & 11.66 \\ \hline G_7 & 3135.96 & 11.00 \\ \hline G_{7}^{\#}/A_{7}^{b} & 3322.44 & 10.38 \\ \hline A_7 & 3520.00 & 9.80 \\ \hline A_{7}^{\#}/B_{7}^{b} & 3729.31 & 9.25 \\ \hline \end{array}$	C ₇	2093.00	16.48
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	C#7/Db7	2217.46	15.56
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D ₇	2349.32	14.69
$\begin{array}{ c c c c c c }\hline F_7 & 2793.83 & 12.35\\\hline F^\#_{7}/G^b_7 & 2959.96 & 11.66\\\hline G_7 & 3135.96 & 11.00\\\hline G^\#_{7}/A^b_7 & 3322.44 & 10.38\\\hline A_7 & 3520.00 & 9.80\\\hline A^\#_{7}/B^b_7 & 3729.31 & 9.25\\\hline \end{array}$	D#7/Eb7	2489.02	13.86
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	E ₇	2637.02	13.08
	F ₇	2793.83	12.35
	F#7/Gb7	2959.96	11.66
A7 3520.00 9.80 A# ₇ /B ^b ₇ 3729.31 9.25	G ₇	3135.96	11.00
A [#] ₇ /B ^b ₇ 3729.31 9.25	G#7/Ab7	3322.44	10.38
	A ₇	3520.00	9.80
	A#7/Bb7	3729.31	9.25
	B ₇	3951.07	8.73

C ₈	4186.01	8.24
C#8/Db8	4434.92	7.78
D ₈	4698.63	7.34
D#8/Eb8	4978.03	6.93
E ₈	5274.04	6.54
F ₈	5587.65	6.17
F#8/Gb8	5919.91	5.83
G ₈	6271.93	5.50
G#8/Ab8	6644.88	5.19
A ₈	7040.00	4.90
$A^{\#}_{8}/B^{b}_{8}$	7458.62	4.63
B ₈	7902.13	4.37
$\begin{array}{c} E_8 \\ F_8 \\ F_8 \\ G_8 \\ G_8 \\ G_8 \\ A_8 \\ A_8 \\ A_8^\#/B_8^b \end{array}$	5274.04 5587.65 5919.91 6271.93 6644.88 7040.00 7458.62	6.54 6.17 5.83 5.50 5.19 4.90 4.63

(To convert lengths in cm to inches, divide by 2.54)

More information on the equal tempered scale Equations used for this table

Questions/Comments to: suits@mtu.edu

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