Note Frequencies

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Here is a table giving the frequencies in Hz of musical pitches, covering the full range of all normal musical instruments I know of and then some. It uses an even tempered scale with A = 440 Hz.

<table>
<thead>
<tr>
<th>CC</th>
<th>C#</th>
<th>D</th>
<th>Eb</th>
<th>E</th>
<th>F</th>
<th>F#</th>
<th>G</th>
<th>G#</th>
<th>A</th>
<th>Bb</th>
<th>B</th>
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<tbody>
<tr>
<td>0</td>
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<td>17.32</td>
<td>18.35</td>
<td>19.45</td>
<td>20.60</td>
<td>21.83</td>
<td>23.12</td>
<td>24.50</td>
<td>25.96</td>
<td>27.50</td>
<td>29.14</td>
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<td>32.70</td>
<td>34.65</td>
<td>36.71</td>
<td>38.89</td>
<td>41.20</td>
<td>43.65</td>
<td>46.25</td>
<td>49.00</td>
<td>51.91</td>
<td>55.00</td>
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<td>2</td>
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<td>69.30</td>
<td>73.42</td>
<td>77.78</td>
<td>82.41</td>
<td>87.31</td>
<td>92.50</td>
<td>98.00</td>
<td>103.8</td>
<td>110.0</td>
<td>116.5</td>
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<td>3</td>
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<td>138.6</td>
<td>146.8</td>
<td>155.6</td>
<td>164.8</td>
<td>174.6</td>
<td>185.0</td>
<td>196.0</td>
<td>207.7</td>
<td>220.0</td>
<td>233.1</td>
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<td>4</td>
<td>261.6</td>
<td>277.2</td>
<td>293.7</td>
<td>311.1</td>
<td>329.6</td>
<td>349.2</td>
<td>370.0</td>
<td>392.0</td>
<td>415.3</td>
<td>440.0</td>
<td>466.2</td>
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<td>587.3</td>
<td>622.3</td>
<td>659.3</td>
<td>698.5</td>
<td>740.0</td>
<td>784.0</td>
<td>830.6</td>
<td>880.0</td>
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<td>5920</td>
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<td>7040</td>
<td>7459</td>
</tr>
</tbody>
</table>

The octave number is in the left column so to find the frequency of middle C which is C4, look down the "C" column til you get to the "4" row : so middle C is 261.6 Hz.

Some Specific Notes

Middle C is C4=261.6Hz

Standard tuning fork A is A4=440Hz

Piano range is A0=27.50Hz to C8=4186Hz

Guitar strings are E2=82.41Hz, A2=110Hz, D3=146.8Hz, G3=196Hz, B3=246.9Hz, E4=329.6Hz

Bass strings are (5th string) B0=30.87Hz, (4th string) E1=41.20Hz, A1=55Hz, D2=73.42Hz, G2=98Hz

Mandolin & violin strings are G3=196Hz, D4=293.7Hz, A4=440Hz, E5=659.3Hz

Viola & tenor banjo strings are C3=130.8Hz, G3=196Hz, D4=293.7Hz, A4=440Hz

Cello strings are C2=65.41Hz, G2=98Hz, D3=146.8Hz, A3=220Hz

Coda

Bear in mind that everything here is in relation to the even tempered (aka equal tempered) scale, where an octave is a frequency ratio of exactly two and a semitone is a frequency ratio of exactly the twelfth root of two. In the real world however many different temperaments may be used - see en.wikipedia.org/wiki/Musical_temperament - and octaves too can vary in size, see en.wikipedia.org/wiki/Stretched_octave.

Also we call middle C "C4" : this is the commonest octave numbering but some people call middle C "C3" or even "C5".

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