WS 39: Overtone Series

A. Notate the indicated overtones series through the sixteenth partial, representing the out-of-tune partials with solid noteheads.

B. Provide the correct pitch.

The 5th partial of B1 is: \[ \text{\includegraphics[width=0.2\textwidth]{pitch1.png}} \] G5 is the 2nd overtone of: \[ \text{\includegraphics[width=0.2\textwidth]{pitch2.png}} \]

The 3rd overtone of D3 is: \[ \text{\includegraphics[width=0.2\textwidth]{pitch3.png}} \] E6 is the 4th partial of: \[ \text{\includegraphics[width=0.2\textwidth]{pitch4.png}} \]

The 4th overtone of A0 is: \[ \text{\includegraphics[width=0.2\textwidth]{pitch5.png}} \] F4 is the 4th overtone of: \[ \text{\includegraphics[width=0.2\textwidth]{pitch6.png}} \]

The 3rd partial of F2 is: \[ \text{\includegraphics[width=0.2\textwidth]{pitch7.png}} \] C5 is the 5th partial of: \[ \text{\includegraphics[width=0.2\textwidth]{pitch8.png}} \]

C. Consider the given pitches as fundamental tones. Notate the lowest overtone they have in common.

D. Notate the fewest tones required to set this chord in vibration.