\[
f_n = \frac{\nu_n}{2L}
\]
\[\nu_{air} \approx 340 \text{ m/s}\]

<table>
<thead>
<tr>
<th>L</th>
<th>(f_1 ) (Hz)</th>
<th>(\lambda_1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cm</td>
<td>17,000</td>
<td>2 cm</td>
</tr>
<tr>
<td>10 cm</td>
<td>1700</td>
<td>20 cm</td>
</tr>
<tr>
<td>1 m</td>
<td>170</td>
<td>200 cm</td>
</tr>
<tr>
<td>10 m</td>
<td>17</td>
<td>20 m</td>
</tr>
</tbody>
</table>

Hearing of young people:
\sim 20 \text{ Hz} - \sim 20 \text{ kHz}