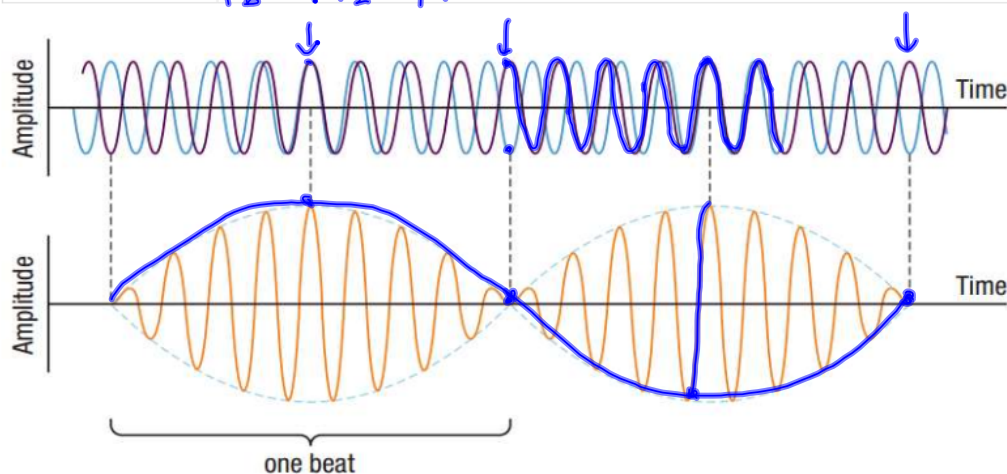


SPH3U 9.3 Beats

## 1. Beats

Beat:	a periodic change in loudness caused by interference between two similar sound waves.
Beat frequency:	frequency of beats produced by this interference.
equation	$f_b =  f_2 - f_1 $ .



John is tuning his guitar. His string produces a frequency of 442 Hz, and his tuner produces a frequency of 440 Hz. What beat frequency does John hear?

$$\begin{aligned}
 f_b &= |f_2 - f_1| \\
 &= |442 - 440| \\
 &= \underline{\underline{2 \text{ Hz}}}
 \end{aligned}$$

Homework: page 429: #2-3