Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_

Average Frequency & Beat Frequency

1. What is the average frequency of an organ that vibrates at 7500 Hz when playing one note, but then changes to 2500 Hz on a another note?
2. What will the beat be if a tuning fork vibrates 458 times each second and a different tuning fork vibrates 450 times each second? (answer should be in Hz)?
3. Find the average frequency of a police car siren if at rest is has a frequency of 1800 Hz but has a frequency of 2000 Hz as it moves towards you.
4. In one of the original Doppler Experiments, one tuba was placed on a moving platform car at a frequency of 75 Hz and a second identical one was placed on the same tone while a rest in the railroad station had a frequency of 77.2 Hz. What was the beat frequency heard?
5. Two trains emit whistles of the same frequency of 277 Hz. However, one train is at rest and the other is traveling away from an observer at rest so the sound is heard at a frequency of 266 Hz. What is the beat frequency heard? What is the average frequency?