Example 3-6: If f_Δ is decreased from 20 Hz to 9 Hz, we see in Fig. **??**(a,b) that the envelope of the 200-Hz tone changes much more slowly. The time interval between nulls (zeros) of the envelope is one-half of the period of the f_Δ sinusoid, $\frac{1}{2}(1/f_\Delta)$, so the more closely spaced the frequencies of the sinusoids in (**??**), the slower the envelope variation. Figures **??** and **??** are simplified somewhat by using zero-phase cosines for both terms in (**??**), but other phase relationships would give similar patterns. Finally, note that for $x(t)$ in Fig. **??** the spectrum contains frequency components at ±220 Hz and ±180 Hz, while for the signal in Fig. **??** the spectrum has frequencies ±209 Hz and ±191 Hz.