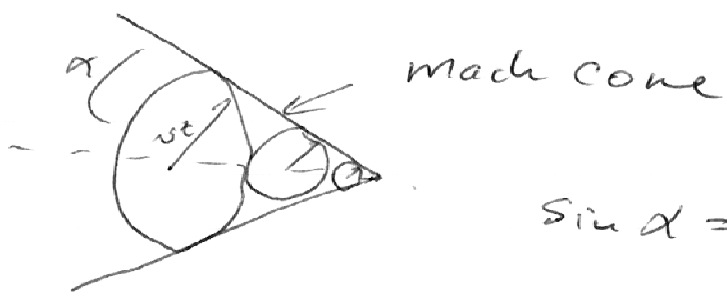


Review 9/22/08

Supersonic waves



$$\sin \alpha = \frac{v}{v_s}$$

v_s = speed of source

v = sound speed.

speed of sound wave

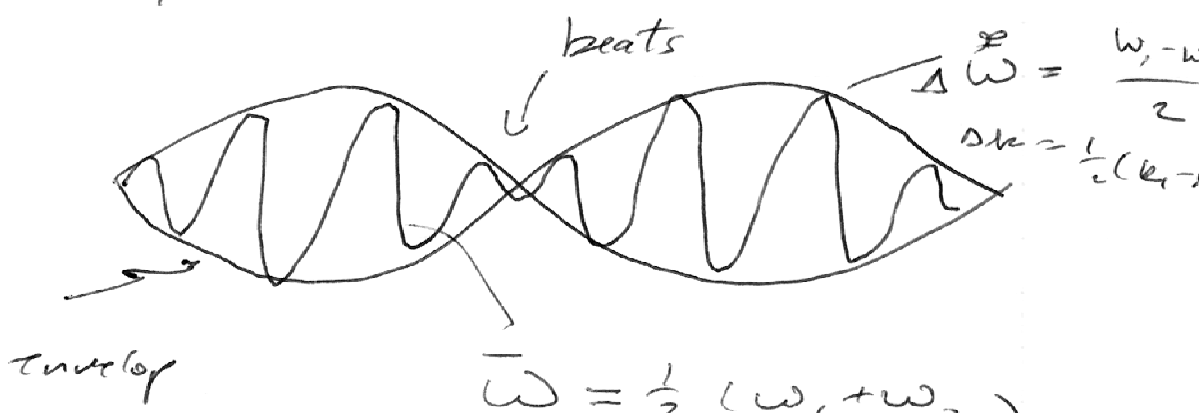
$$v = \sqrt{\frac{\gamma k_B T}{m}}$$

Plane, cylindrical, spherical waves

standing wave in tubes

with open and closed ends

Add waves w/ different frequencies,



$$\bar{\omega} = \frac{1}{2} (\omega_1 + \omega_2)$$

$$\bar{k} = \frac{1}{2} (k_1 + k_2)$$

Group velocity $\frac{\Delta \omega}{\Delta k}$