

Review 9/17/08

- Phase velocity  $v_p = \frac{\omega}{k}$
- Power transmitted by wave

$$\langle P \rangle_{\text{time average}} = \frac{1}{2} \mu v \omega^2 A^2 \left[ \frac{\text{energy}}{\text{sec}} \right]$$

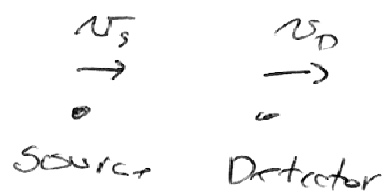
- Superposition

$$y(x,t) = \underbrace{f(kx \pm \omega t)}_{\text{Sol}_1} + \underbrace{g(kx \pm \omega t)}_{\text{Sol}_2}$$

$\underbrace{\hspace{15em}}_{\text{Sol}}$

⇒ Constructive & destructive interference

- Doppler Effect



$$v' = v \frac{1 - v_D/v}{1 - v_s/v}$$

$v$  = speed of sound