Refleksjonskoeffisient:

$$R = \frac{\bar{P}_r}{\bar{P}_i} = \frac{\frac{1}{2} v_1 \mu_1 \omega^2 y_{r0}^2}{\frac{1}{2} v_1 \mu_1 \omega^2 y_{i0}^2} = \left(\frac{y_{r0}}{y_{i0}}\right)^2 = \frac{\left(\sqrt{\mu_2} - \sqrt{\mu_1}\right)^2}{\left(\sqrt{\mu_2} + \sqrt{\mu_1}\right)^2}$$

Energibevarelse?

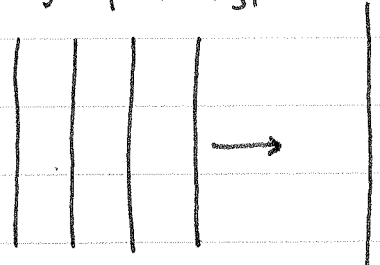
$$T + R = \frac{\bar{P}_t}{\bar{P}_i} + \frac{\bar{P}_r}{\bar{P}_i} = \frac{4\sqrt{\mu_1\mu_2} + \mu_2 - 2\sqrt{\mu_1\mu_2} + \mu_1}{\mu_2 + 2\sqrt{\mu_1\mu_2} + \mu_1} = 1$$

som betyr $\bar{P}_t + \bar{P}_r = \bar{P}_i$ ok!

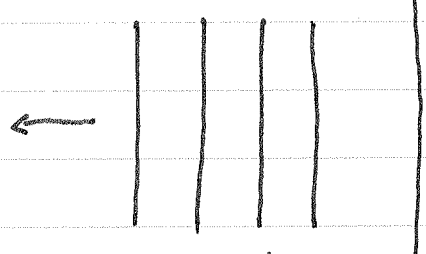
Hit 25.09.06

27.09.06 **Plan lydbølge (rett) mot grenseflate mellom to medier**

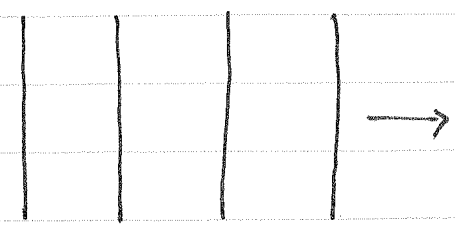
medium 1; $v_1 = \sqrt{B_1/\rho_1}$ $x=0$ medium 2; $v_2 = \sqrt{B_2/\rho_2}$



$$\xi_i(x,t) = \xi_{i0} \sin(k_i x - \omega t)$$



$$\xi_r(x,t) = \xi_{r0} \sin(k_i x + \omega t)$$



$$\xi_t(x,t) = \xi_{t0} \sin(k_t x - \omega t)$$