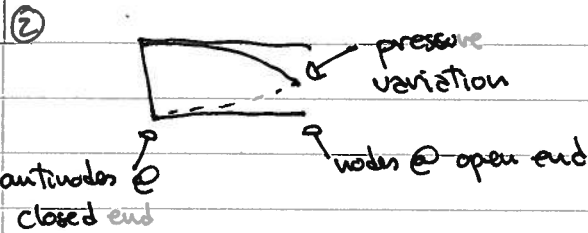
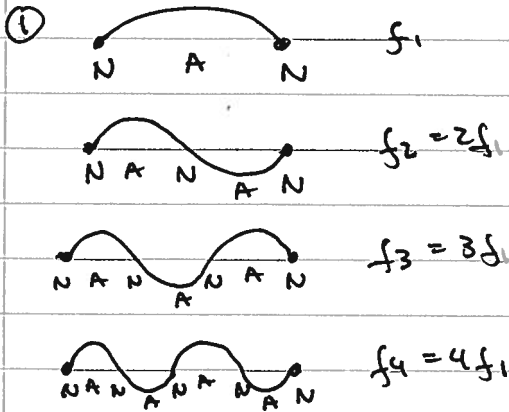


PHY102 (2008) - HOMEWORK #4



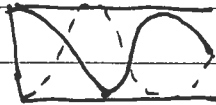
$v_s = \text{speed of sound} \approx 343 \text{ m/s}$

$\lambda = 4L$

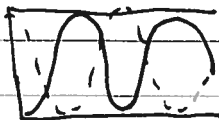
$f = \frac{v_s}{\lambda} = \frac{v_s}{4L} = \frac{343 \text{ m/s}}{4 \times 3.45 \text{ m}} \approx 25 \text{ Hz (G)}$



$\lambda = 4L/3, f = \frac{3}{4} \frac{343 \text{ m/s}}{3.45 \text{ m}} \approx 75 \text{ Hz (D)}$



$\lambda = 4L/5, f = \frac{5}{4} \frac{343 \text{ m/s}}{3.45 \text{ m}} \approx 125 \text{ Hz (B)}$



$\lambda = 4L/7, f = \frac{7}{4} \frac{343 \text{ m/s}}{3.45 \text{ m}} \approx 175 \text{ Hz (F)}$