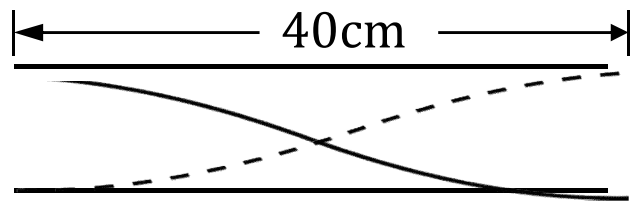


例題3 解答例

25°Cのときの音速は $V = 331.5 + 0.6t = 331.5 + 0.6 \cdot 25 = 346.5$ [m/s]

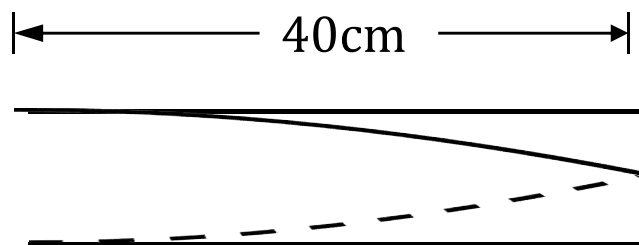
開管の基本振動は



$$0.4 = \frac{\lambda}{2} \times 1 \quad \lambda = 0.8 \text{ m}$$

$$f = \frac{V}{\lambda} = \frac{346.5}{0.8} = 433\text{Hz} \quad (\text{ラ音 } 440\text{Hz})$$

閉管の基本振動は



$$0.4 = \frac{\lambda}{4} \times 1 \quad \lambda = 1.6 \text{ m}$$

$$f = \frac{V}{\lambda} = \frac{346.5}{1.6} = 216\text{Hz}$$

(1オクターブ低いラ音 220Hz)