

## Temperature

Room temperature 20 °C

Human body temperature 37 °C

$$T_{KELVIN} = T_{CENTIGRADE} + 273 \text{ K}$$

## Speed of sound

$$v = f \lambda$$

Speed of sound in air at room temperature = 344 m/s

$$v = 20.1 \sqrt{T_{KELVIN}}$$

$$v = \sqrt{\frac{T}{\mu}} \quad \text{where } T \text{ is tension}$$

## Helmholtz Resonator

$$f = \left( \frac{v_s}{2\pi} \right) \sqrt{\frac{a}{Vl}}$$

## Standing waves

$$f_n = \frac{nv}{2L} \quad n = 1, 2, 3, \dots$$

$$f_n = \frac{nv}{4L} \quad n = 1, 3, 5, \dots$$