



A Level Physics Online

Investigating Stationary Waves

$c = \text{wavespeed}$ $\mu = \text{mass per unit length}$
 $c = f\lambda$ $c = \sqrt{\frac{T}{\mu}}$
 $T = \text{time period}$ or $T = \text{tension}$

Vibration generator Bridge

L/μ	f/Hz	T/s

$c = f\lambda$ $f = \frac{1}{T}$
at f_0 $L = \frac{\lambda}{2}$ $\lambda = 2L$

$c = 2fL = 2 \frac{L}{T}$

L/μ T/s $\text{gradient} = \frac{L}{T}$ $c = 2 \times \text{gradient}$

(This is if you use the first harmonic)

