

PS - March 14 Pi day
 $3.14159\dots$

A diagram showing a standing wave with three antinodes and four nodes. The nodes are marked with vertical double-headed arrows and labeled "nodes". The antinodes are marked with vertical double-headed arrows and labeled "Antinode".

Wavelength
 $l \times 4 = \lambda$
 $\lambda = \text{---} \text{m}$
 $f = \text{---} \text{Hz}$
 $v = \lambda f =$

A diagram showing a tube with a standing wave. The tube is labeled with length l . A "whole wave" is shown to the right of the tube, consisting of two full cycles of a sine wave.

$2.5 \times .6 = 1.5$ ($d \times .6 + l$)
 $25 + 1.5 = 26.5$ ($.6d$) example
 106 cm
 1.06 m
 $1.06 \text{ m} (329.6)$
 $= 349.38 \frac{\text{m}}{\text{s}}$

A diagram of a tube with a standing wave. The distance from the center to the edge is labeled d . The wave is shown as a red sine wave.

$25 \text{ cm} + .6 (2 \text{ cm})$
 $25 \text{ cm} + 1.2 \text{ cm}$
 $= 26.2 \text{ cm}$
 $\lambda = 26.2 \times 4 = 104.8$
 1.048 m

length $\times 4$
 wavelength
 example
 $25 \text{ cm} \times 4 = 100 \text{ cm}$
 1 m

A diagram showing a tube with a standing wave. The tube is labeled with length l . A "whole wave" is shown to the right of the tube, consisting of two full cycles of a sine wave. The length of the whole wave is labeled $\lambda/4$.

$$\lambda = \text{---} \text{ m (measured x 4)}$$

$$f = \text{---} \text{ Hz on Tuning fork}$$

$$V = \lambda f$$

speed of sound = wavelength freq