

# Physics 231 - 29-Nov-99



- | Announcements

- | Wave Motion

  - | Transverse Waves

  - | Longitudinal Waves

- | Quiz

# Wave Motion



- Transverse Waves

- Longitudinal Waves

Q1 - Answer = c

Q2 - Problem A - Last name A-K

The C string on a cello produces a fundamental frequency of 65.4 Hz. If its linear density is  $1.56 \times 10^{-2}$  kg/m and its length 0.8 m, what is the tension in the string?

- A. 121 N
- B. 171 N
- C. 267 N
- D. 343 N
- E.  $7 \times 10^5$  N

Q1 - Answer = c

Q2 - Problem B - Last Name L-Z

A wire of linear density  $0.0140 \text{ kg/m}$  at a tension of  $323 \text{ N}$  is stretched between two poles  $19.0 \text{ m}$  apart. What is the lowest frequency sound this wire could produce?

- A.  $2 \text{ Hz}$
- B.  $4 \text{ Hz}$
- C.  $0.25 \text{ Hz}$
- D.  $152 \text{ Hz}$
- E.  $76 \text{ Hz}$