

$$v = \lambda f = \sqrt{\frac{F}{\mu}}$$

If you reduce by half the wavelength λ of a wave on a string, what happens to the wave speed v and the wave frequency f ?

- A. v is doubled and f is doubled.
- B. v is doubled and f is unchanged.
- C. v is unchanged and f is halved.
- D. v is unchanged and f is doubled.
- E. v is halved and f is unchanged.



The rods on the xylophone below generate different frequencies. Why?

- A) The rods have different densities
- B) The velocity of sound changes through the rods of differing length.
- C) The wavelengths vary.
- D) More than one of the above.



Q154

$$v = \sqrt{\frac{F}{\mu}} = \lambda f$$

Same
material
used

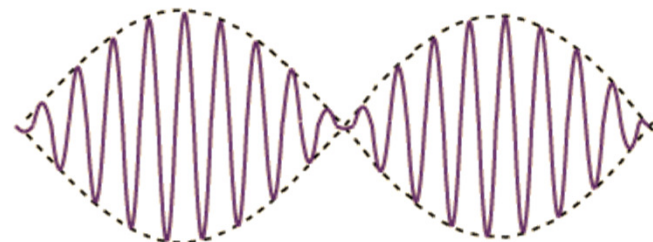
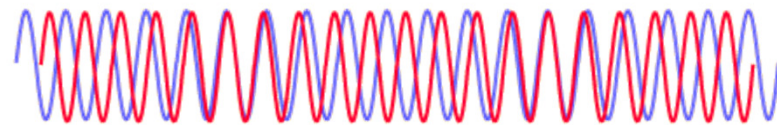


Two waves can interfere:



- A. Only when traveling in the same direction
- B. Only when the frequencies are the same
- C. Only when both are sinusoidal
- D. Only when the phase difference is constant

E. None of the above



Chapter/Section: Clicker #=Answer

151=D, 152=E, 154=C