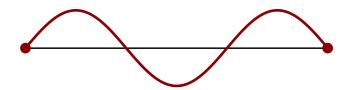
Question 1

A string with length L has both ends fixed. The third harmonic (n=3) is illustrated.



Which of the following is true regarding the wavelength of this standing wave?

1.
$$\lambda = 2L$$

$$2. \ \lambda = \frac{3}{2}L$$

3.
$$\lambda = L$$

$$4. \ \lambda = \frac{2}{3}L$$

5.
$$\lambda = \frac{1}{2}L$$

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Question 2

A $1\,\mathrm{m}$ long string is stretched so that the frequency of the fundamental is $250\,\mathrm{Hz}.$

Which of the following is/are possible as a the frequency of the harmonics?

- 1. 125 Hz
- 2. 300 Hz
- 3. 500 Hz
- 4. 600 Hz