

- 21 A guitar string vibrates to create a sound. The speed of the wave in the guitar string is always  $440\text{ m s}^{-1}$ . The vibrating string creates a sound wave that moves in the air with a speed of  $330\text{ m s}^{-1}$ .

Which graph shows the variation of frequency  $f$  with the wavelength  $\lambda$  for the waves in the string and in the air?

