

Answers to selected questions

Chapter 16

Q6. Blue. Table 16.1 indicates that wavelengths between 440 nm and 490 nm are perceived by most people to be blue.

Q12. Yes. If interference is occurring, the light passing through both slits must have come from the same light source in order for there to be a consistent phase relationship between the two waves.

Q18. The light reflected from the top and bottom surfaces of the anti-reflection coating undergoes destructive interference. This assures that little or no light is reflected for the design wavelength.

Q24. Yes. Since waves on a guitar string are transverse waves, they can be polarized. Depending upon the angle at which the string is plucked, the string can vibrate in different planes perpendicular to the axis of the string.