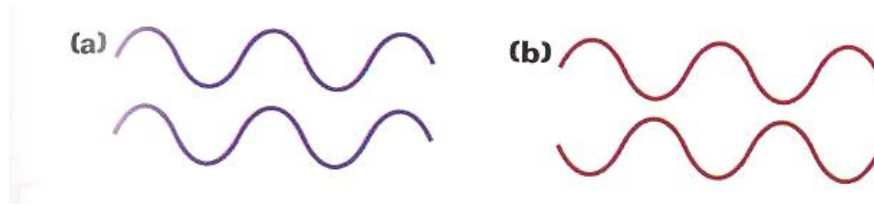


REVIEW QUESTIONS

Chapter 7

1. What is index of refraction? Why is its value always equal to or greater than 1?
2. The speed of light in a particular glass is  $1.60 \times 10^8$  m/s. What is the index of refraction of the glass?
3. The index of refraction of a plastic is 1.80. What is the speed of light in this plastic?

4. Shown below are two pairs of waves. For each pair, predict whether constructive or destructive interference occurs. Then sketch the resulting wave below the diagrams.



Resultant:

Type: \_\_\_\_\_

5. Complete each statement below with a suitable word or phrase:

- A) Polarization is proof that light is a \_\_\_\_\_ wave.
- B) A converging lens is \_\_\_\_\_ at the center than the edge.
- C) When light disperses through a prism, the \_\_\_\_\_ wavelength refracts the most.
- D) When two waves are aligned out of phase, \_\_\_\_\_ interference occurs.
- E) \_\_\_\_\_ is the bending of light around obstacles.
- F) When waves cause constructive interference, the amplitude of the resulting wave becomes \_\_\_\_\_.
- G) When light travels from a less dense matter to a more dense matter, it \_\_\_\_\_.