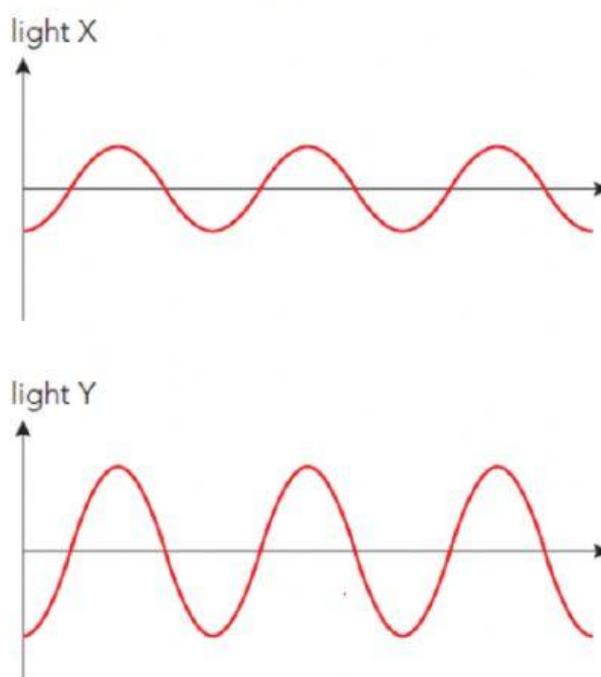


# QUIZ 1

## Describing Waves

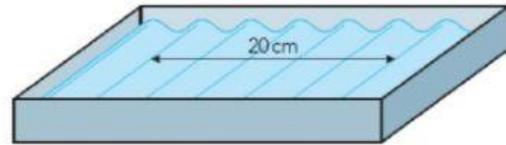
- 1 Copy and complete the following sentences.
  - a A wave transfers \_\_\_\_\_ from place to place without transferring \_\_\_\_\_.
  - b In a \_\_\_\_\_ wave the vibrations are at right angles to the direction in which the wave travels. In a \_\_\_\_\_ wave the vibrations are back and forth along the direction of the wave.
  
- 2 The two waves in Figure 14.9 represent two light waves, X and Y.



Fill in the blanks with one of the words on the bracket.

- a. The two waves have \_\_\_\_\_ wavelengths. {the same / different}
- b. The two waves have \_\_\_\_\_ amplitudes. {the same / different}
- c. Light X will be \_\_\_\_\_ than light Y. {brighter / dimmer}

3. The wavelength of the ripple on the picture is \_\_\_\_\_ m.



The bar of a ripple tank vibrates 5 times per second.

- The frequency of the waves is \_\_\_\_\_ Hz.
- The period of the waves is \_\_\_\_\_ s.
- The speed of the wave is \_\_\_\_\_ m/s.

4. Light and sound are both types of waves. Fill in the blanks with the word on the bracket on the right.

a. Light is a \_\_\_\_\_ wave. *{transverse / longitudinal}*  
The vibrations are \_\_\_\_\_ to the direction of travel of the waves.  
*{parallel to / at right angel to}*  
These waves \_\_\_\_\_ travel through a vacuum. *{can / cannot}*

b. Sound is a \_\_\_\_\_ wave. *{transverse / longitudinal}*  
The vibrations are \_\_\_\_\_ to the direction of travel of the waves.  
*{parallel to / at right angel to}*  
These waves \_\_\_\_\_ travel through a vacuum. *{can / cannot}*

c. Lily sees a flash of lightning and three seconds later, she hears a thunder. This happens because the speed of light is faster than sound. If the speed of sound in air is 330 m/s. The distance between Lily and the storm is \_\_\_\_\_ km.