QUIZ 1

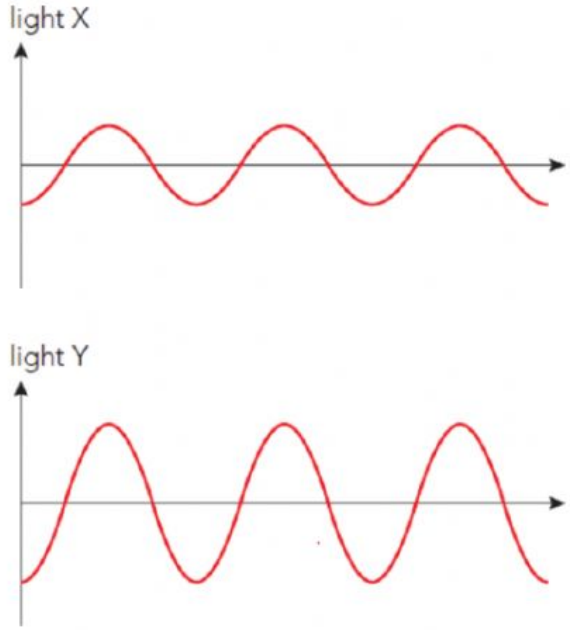
Describing Waves

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.



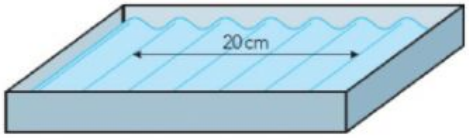
Fill in the blanks with one of the words on the bracket.

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.

a. The frequency of the waves is _____ Hz.
b. The period of the waves is _____ s.
c. 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.