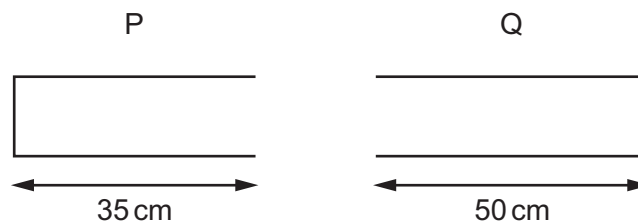


- 26** A surveyor's device emits a pulse of light. The light is reflected from a wall 150 m away.

What is the time taken for the pulse to travel from the device to the wall and then back to the device?

- A** 0.05 ns **B** 0.10 ns **C** 0.50 μs **D** 1.0 μs

- 27** Progressive sound waves of wavelength 20 cm enter the air columns in a closed pipe P and an open pipe Q. The lengths of the pipes are shown.



In which pipe or pipes are stationary waves formed?

- A** P and Q
B P only
C Q only
D neither P nor Q
- 28** What happens when waves pass through a gap equal to their wavelength?
- A** There is diffraction and the wavelength decreases.
B There is diffraction and the wavelength stays the same.
C There is no diffraction and the wavelength decreases.
D There is no diffraction and the wavelength stays the same.