

24 Which row is correct for sound waves?

	can travel in a vacuum	can be polarised	can diffract through a gap
A	no	no	yes
B	yes	no	no
C	no	yes	no
D	no	yes	yes

25 Which statement about longitudinal and transverse wave motion for a progressive wave is correct?

- A** All transverse and longitudinal waves require a medium for propagation.
- B** All transverse waves travel at the same speed, but longitudinal waves can travel at different speeds.
- C** In both transverse waves and longitudinal waves, a particle with zero displacement has a maximum speed.
- D** In a longitudinal wave there is a net movement of particles in the direction of travel of the wave, but there is no net movement of particles in a transverse wave.

28 Which statement compares the behaviour of transverse and longitudinal waves?

- A** Only longitudinal waves can be diffracted.
- B** Only longitudinal waves can travel in free space.
- C** Only transverse waves can be coherent.
- D** Only transverse waves can be polarised.