

24 Polarisation is associated with certain waves.

Which waves **cannot** be polarised?

- A** radio waves from a transmitter
- B** sound waves from a moving source
- C** ultraviolet rays from the Sun
- D** X-rays from an X-ray emitter

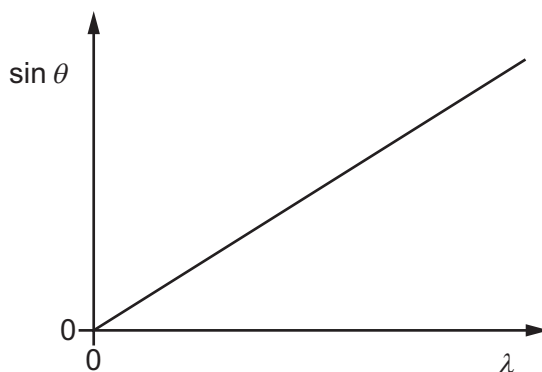
25 A guitar string is plucked.

Which statement describes the resulting waves?

- A** Longitudinal waves on the string cause longitudinal waves in the air.
- B** Longitudinal waves on the string cause transverse waves in the air.
- C** Transverse waves on the string cause longitudinal waves in the air.
- D** Transverse waves on the string cause transverse waves in the air.

26 A diffraction grating with N lines per metre is used to diffract light of various wavelengths λ .

The graph shows the relation between the diffraction angle θ and λ for different wavelengths in the n^{th} order interference pattern.



What is the gradient of the graph?

- A** Nn
- B** $\frac{N}{n}$
- C** $\frac{n}{N}$
- D** $\frac{1}{Nn}$

27 A stationary sound wave is formed in the air column inside a tube that is open at both ends.

The stationary wave has three nodes.

How many antinodes does it have?

- A** 1
- B** 2
- C** 3
- D** 4