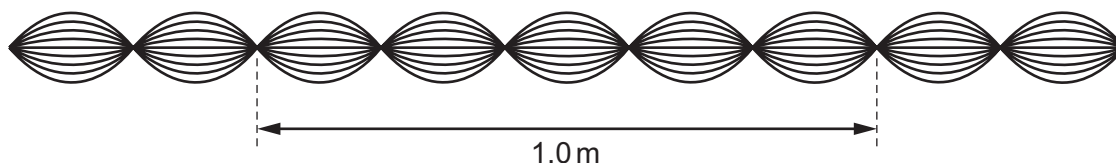


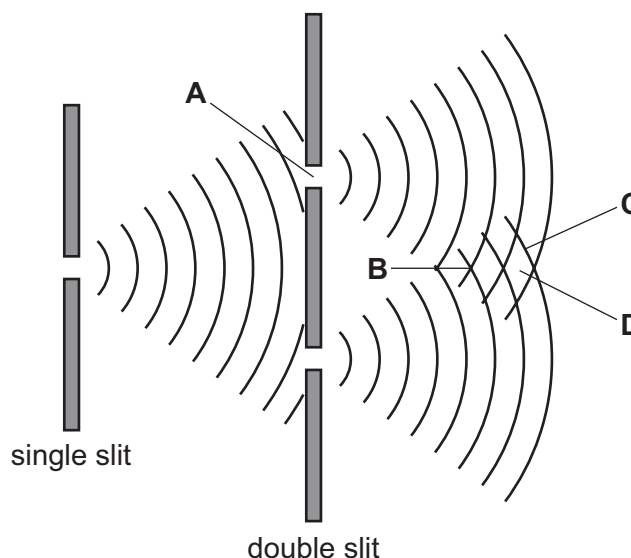
- 28 The diagram shows a sketch of a wave pattern over a short period of time.



Which description of this wave is correct?

- A The wave is longitudinal, has a wavelength of 20 cm and is stationary.
 - B The wave is transverse, has a wavelength of 20 cm and is stationary.
 - C The wave is transverse, has a wavelength of 40 cm and is progressive.
 - D The wave is transverse, has a wavelength of 40 cm and is stationary.
- 29 The double-slit experiment demonstrates interference between two coherent sources of light waves. In the diagram, the curved lines represent wavefronts.

At which point does complete destructive interference (a minimum) occur?



- 30 Light of wavelength 567 nm is incident normally on a diffraction grating. The grating has 400 lines per mm. A number of diffraction maxima are observed on the far side of the grating.

What is the angle between the second-order maximum and the third-order maximum?

- A 13.1°
- B 13.9°
- C 15.9°
- D 27.0°