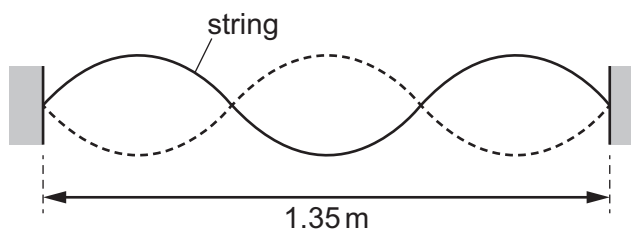


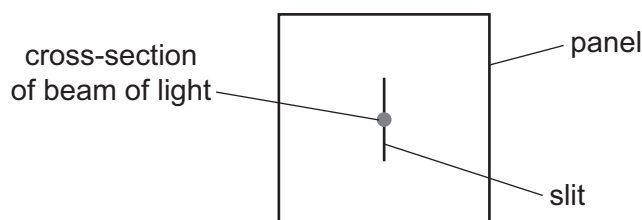
- 27** A stationary wave is produced on a string that is stretched between two fixed points that are a distance of 1.35 m apart, as shown.



The speed of the waves on the string is  $450 \text{ m s}^{-1}$ .

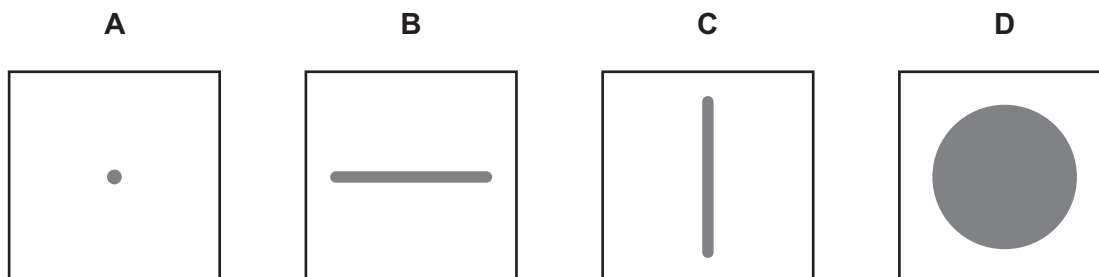
What is the frequency of oscillation of the stationary wave?

- A** 333 Hz      **B** 405 Hz      **C** 500 Hz      **D** 1000 Hz
- 28** A beam of laser light is directed towards a narrow slit.



After emerging from the other side of the slit, the diffracted light then falls on a screen.

What is the pattern of light seen on the screen?



- 29** Two waves, each with a constant amplitude, interfere and produce an interference pattern. The pattern has minima at fixed points where the displacement is zero at all times.

Which statement describes the two waves?

- A** They must be coherent and of the same amplitude.  
**B** They must be coherent but not necessarily of the same amplitude.  
**C** They must be of the same amplitude but not necessarily coherent.  
**D** They must not be coherent or of the same amplitude.