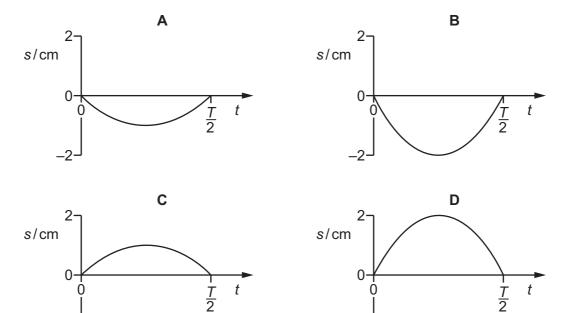
28 The diagram shows a stationary wave, at time t = 0, that has been set up on a string fixed between points P and S.



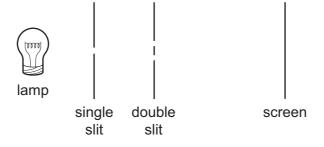
The nodes of the stationary wave occur on the string at P, Q, R and S. Point X is moving down at time t = 0. The points on the string vibrate with time period T and maximum amplitude 2 cm.

The displacement *s* is positive in the upward direction.

Which graph best shows the variation with *t* of the displacement *s* of point Y on the string?



29 A two-source interference experiment uses the apparatus shown.



What is the main purpose of the single slit?

- A to make a narrow beam of light
- B to make the same amplitude of light incident on each slit
- C to provide coherent light
- **D** to provide monochromatic light