

26 Where, in a standing wave, do the vibrations of the medium occur?

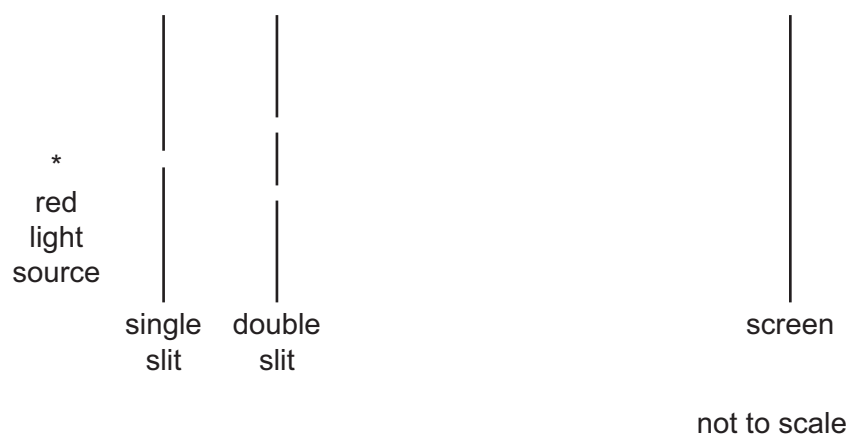
- A only at the nodes
- B only at the antinodes
- C at all points between the nodes
- D at all points between the antinodes

27 Monochromatic light is incident on a diffraction grating and a diffraction pattern is observed.

Which line of the table gives the effect of replacing the grating with one that has more lines per metre?

| | number of orders of diffraction visible | angle between first and second orders of diffraction |
|---|---|--|
| A | decreases | decreases |
| B | decreases | increases |
| C | increases | decreases |
| D | increases | increases |

28 A double-slit interference experiment is set up as shown.



Fringes are formed on the screen. The distance between successive bright fringes is found to be 4 mm.

Two changes are then made to the experimental arrangement. The double slit is replaced by another double slit which has half the spacing. The screen is moved so that its distance from the double slit is twice as great.

What is now the distance between successive bright fringes?

- A 1mm B 4mm C 8mm D 16mm