

28 Light of wavelength λ is emitted from two point sources R and S and falls onto a distant screen.

R •

S •

screen



(not to scale)

At point P on the screen, the light intensity is zero.

What could explain the zero intensity at P?

- A** Light from the two sources is emitted 180° out of phase and the path difference to P is $\frac{1}{2}\lambda$.
- B** Light from the two sources is emitted in phase and the path difference to P is λ .
- C** Light from the two sources is emitted 90° out of phase and the path difference to P is λ .
- D** Light from the two sources is emitted in phase and the path difference to P is $\frac{1}{2}\lambda$.