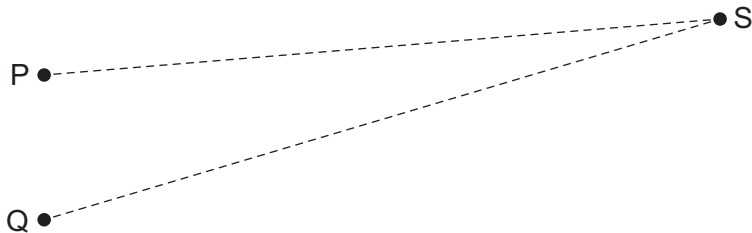


- 28** Two sources of microwaves P and Q produce coherent waves with a phase difference of  $180^\circ$ . The waves have the same wavelength  $\lambda$ .



At the point S there is a minimum in the interference pattern produced by waves from the two sources. The distance  $(QS - PS)$  is called the path difference.

Which expression could represent the path difference?

**A**  $\frac{\lambda}{4}$

**B**  $\frac{\lambda}{2}$

**C**  $\lambda$

**D**  $\frac{3\lambda}{2}$