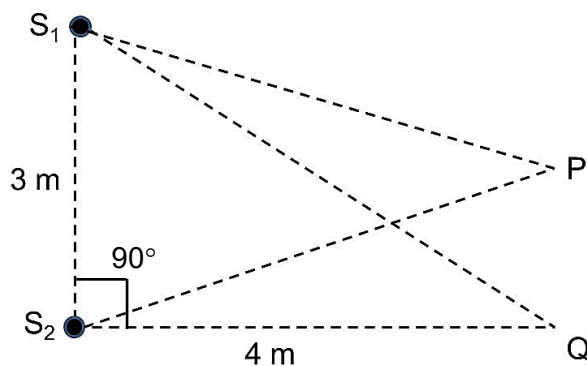


- 14 Two sources of waves,  $S_1$  and  $S_2$ , are situated as shown in the figure below. Individually, each source emits waves of intensity  $I$ .



Equidistant from  $S_1$  and  $S_2$ , a detector at  $P$  registers a steady minimum wave intensity. The same detector registers the next steady minimum intensity when it moves to point  $Q$ . Which of the following statements is false about the two sources of waves?

- A The two sources of waves have the same amplitude.
- B The two sources of waves are coherent.
- C The two sources of waves have a phase difference of  $\pi$  radians.
- D The waves from the two sources have a wavelength of 2 m.

