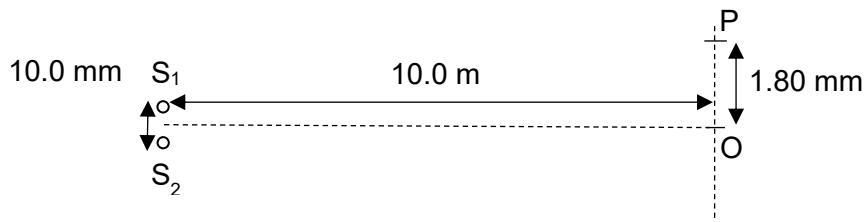


- 14** The figure below (not to scale) shows two coherent electromagnetic wave sources,  $S_1$  and  $S_2$  which are  $\pi$  rad out of phase, placed 10.0 mm apart. The two sources are at an equidistant of 10.0 m from a detector at O. The wavelength of the electromagnetic wave is 532 nm.



How many minima would the detector detect as it moves a distance 1.80 mm from point O to point P?

**A** 2

**B** 3

**C** 4

**D** 5