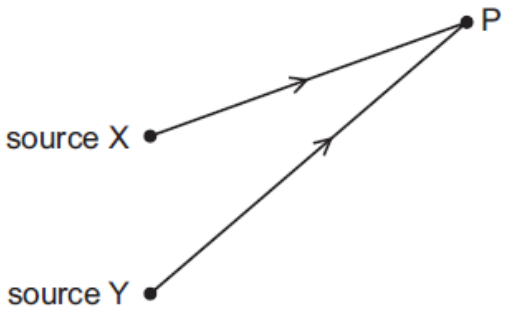
17 Two identical water waves travel from two sources X and Y to meet at point P. The frequency of the waves is 0.40 Hz and the sources are in phase.



Waves from source X take 3.0 s to arrive at P, while waves from source Y take 3.5 s to arrive at P.

What is the phase difference, in radians, between the two waves at P?

A $\frac{\pi}{5}$ **B** $\frac{2\pi}{5}$ **C** $\frac{5\pi}{2}$ **D** 5π