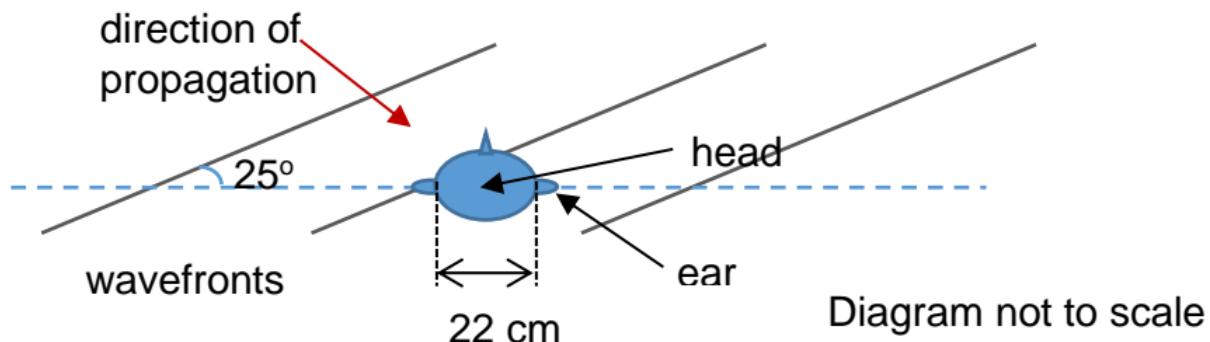


- 16 Humans are able to detect the general direction of a sound source because sound waves from the source reaches the left and right ears at slightly different times.

The figure shows the top view of a human head with the two ears 22 cm apart. Sound waves of wavelength 1.7 m from a distant source reach the ears at an angle of 25° to the horizontal.



What is the phase difference between the waves reaching the left and right ear?

A 0.34 rad

B 0.58 rad

C 0.74 rad

D 0.81 rad