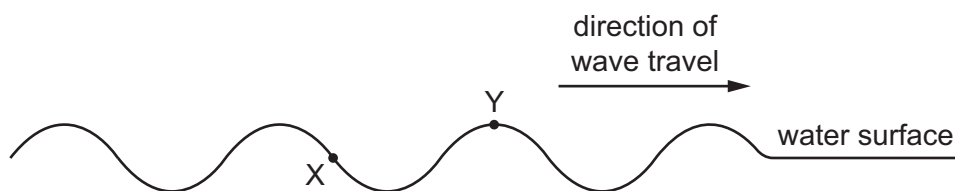


- 20 X and Y are two points on the surface of water in a ripple tank. A source of constant frequency generates a wave which travels past X and Y, causing them to oscillate vertically.

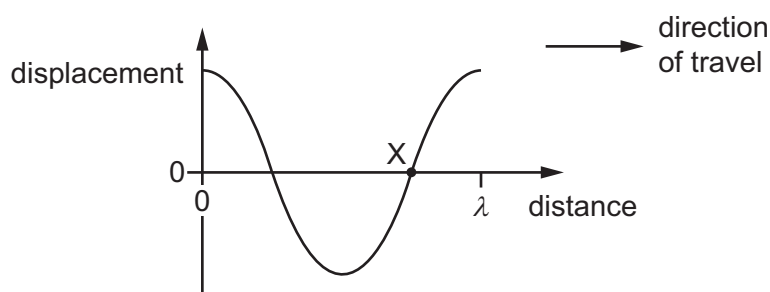


What is the phase difference between X and Y?

- A  $45^\circ$       B  $135^\circ$       C  $180^\circ$       D  $270^\circ$

- 21 A transverse wave on a rope has wavelength  $\lambda$  and period  $T$ .

The graph shows the variation of the displacement of the particles of the rope with distance in the direction of travel of the wave at time  $t = 0$ .



A particle X is labelled.

Which graph shows the variation of the displacement of particle X with time  $t$ ?

