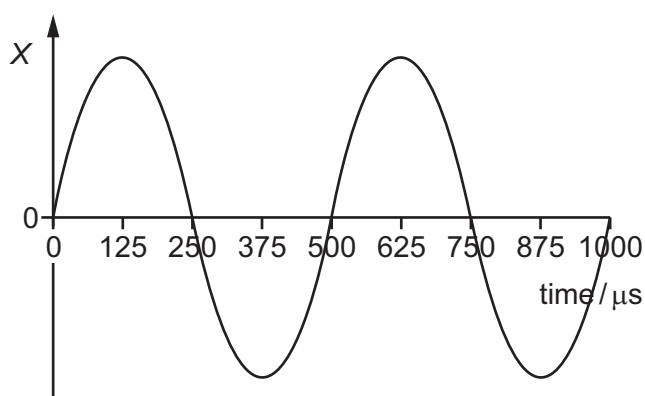


- 25** The graph shows the variation with time of the displacement  $X$  of a gas molecule as a continuous sound wave passes through a gas.



The velocity of sound in the gas is  $330 \text{ m s}^{-1}$ . All the graphs below have the same zero time as the graph above.

What is the displacement-time graph for a molecule that is a distance of  $0.165 \text{ m}$  further away from the source of the sound?

