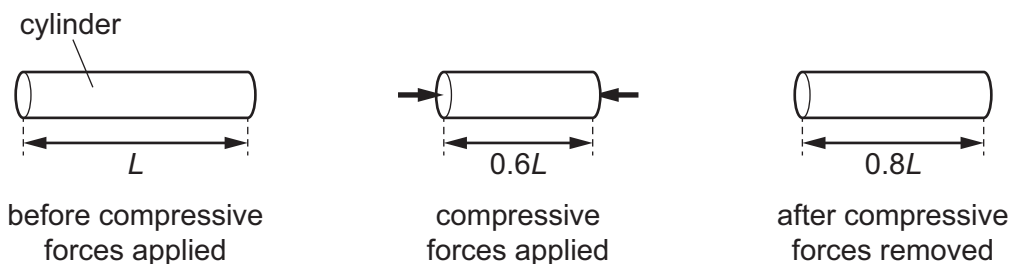
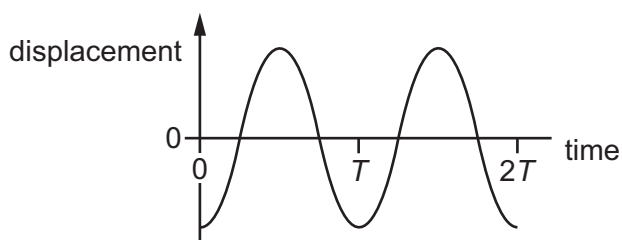


- 19** Compressive forces are applied normally to the end faces of a cylinder of initial length  $L$ . The cylinder is compressed by the forces so that its length decreases to  $0.6L$ . After the compressive forces are removed, the cylinder's length increases to  $0.8L$ .



What describes the deformation of the cylinder when its length was  $0.6L$ ?

- A** both elastic and plastic  
**B** elastic only  
**C** plastic only  
**D** neither elastic nor plastic
- 20** When sound travels through air, the air particles vibrate. A graph of displacement against time for a single air particle is shown.



Which graph shows how the kinetic energy of the air particle varies with time?

