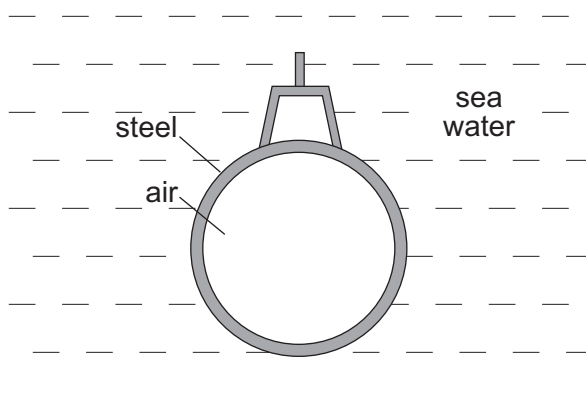


- 10 Two bodies travelling in a straight line collide in a perfectly elastic collision. Which of the following statements **must** be correct?
- A The initial speed of one body will be the same as the final speed of the other body.
 - B The relative speed of approach between the two bodies equals their relative speed of separation.
 - C The total momentum is conserved but the total kinetic energy will be reduced.
 - D One of the bodies will be stationary at one instant.
- 11 A submarine is in equilibrium in a fully submerged position.



What causes the upthrust on the submarine?

- A The air in the submarine is less dense than sea water.
- B The sea water exerts a greater upward force on the submarine than the weight of the steel.
- C The submarine displaces its own volume of sea water.
- D There is a difference in water pressure acting on the top and on the bottom of the submarine.

Space for working