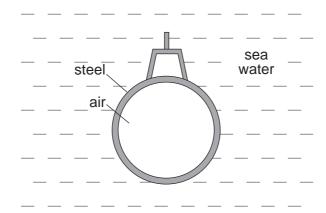
15 A submarine is in equilibrium in a fully submerged position.

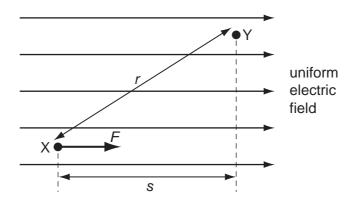


What causes the upthrust on the submarine?

- 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 bottom of the submarine.
- **16** A positive charge experiences a force *F* when placed at point X in a uniform electric field.

The charge is then moved from point X to point Y.

Distances r and s are shown on the diagram.



What is the change in the potential energy of the charge?

- A decreases by Fs
- **B** increases by Fs
- **C** decreases by *Fr*
- **D** increases by *Fr*