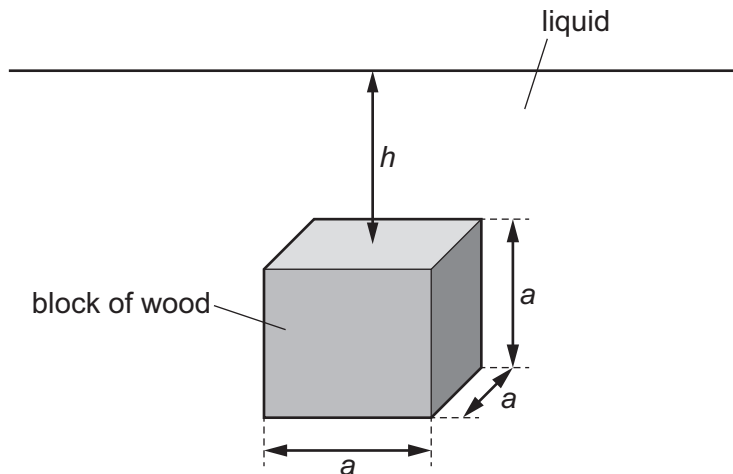


**15** A block of wood of density  $\rho_w$  has sides of length  $a$ .

The block is immersed in a liquid of density  $\rho_L$ . The top surface of the block is at a depth  $h$  below the surface of the liquid.



The acceleration of free fall is  $g$ .

What is the upthrust acting on the block from the liquid?

**A**  $\rho_L a^3 g$

**B**  $\rho_w a^3 g$

**C**  $\rho_L h g$

**D**  $\rho_L a g$