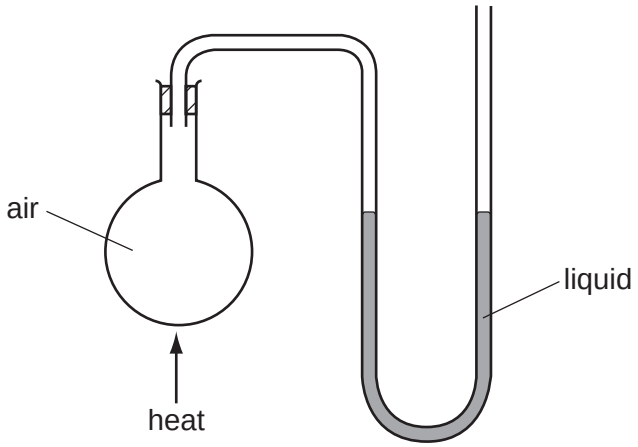
18 The diagram shows a flask connected to a U-tube containing liquid. The flask contains air at atmospheric pressure.



The flask is now gently heated and the liquid level in the right-hand side of the U-tube rises through a distance h. The density of the liquid is ρ.

What is the increase in pressure of the heated air in the flask?

A $h\rho$ **B** $\frac{1}{2}h\rho g$ **C** $h\rho g$ **D** $2h\rho g$

19 Four materials are formed into rods of the same dimensions.

At room temperature, which can sustain the largest plastic deformation?

A the ductile material aluminium

B the brittle material carbon

C the brittle material glass

D the ductile material steel

Space for working