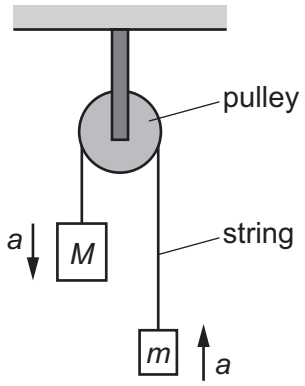
10 Two blocks of masses *M* and *m* are joined by a thin string which passes over a frictionless pulley, as shown.

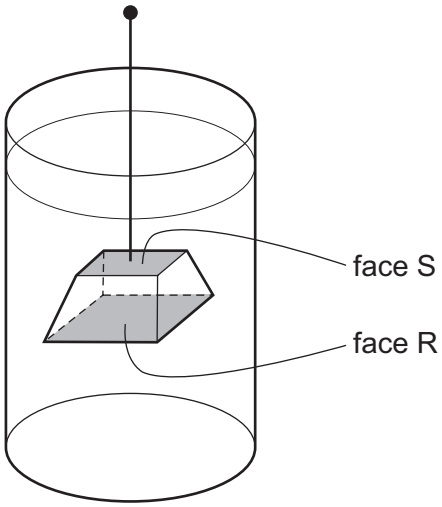


The acceleration of free fall is *g*.

What is the acceleration *a* of the two blocks?

A $\frac{(M+m)}{(M-m)}g$ **B** $\frac{(M-m)}{(M+m)}g$ **C** $\frac{M}{m}g$ **D** $\frac{m}{M}g$

11 The diagram shows a block of copper suspended in water.



The block experiences an upthrust from the water.

Which statement is the basis of an explanation for this upthrust?

A Copper is more dense than water.

B The area of face R is greater than the area of face S.

C The density of water increases with depth.

D The pressure of water increases with depth.