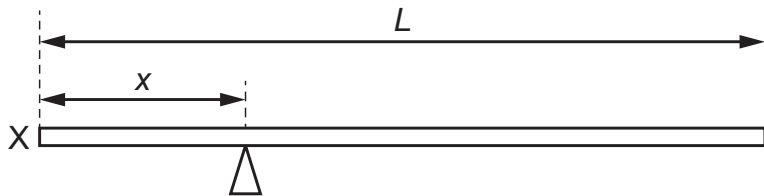


- 14 The diagram shows a uniform bar of mass  $M$  and length  $L$  resting on a pivot at a distance  $x$  from end X.



An object of mass  $m$  is placed on the bar at distance  $y$  from the pivot so that the bar is in equilibrium.

What is an expression for  $y$ ?

- A**  $\frac{xM}{m}$       **B**  $\frac{M}{m}(L - x)$       **C**  $\frac{M}{2m}(L - 2x)$       **D**  $\frac{1}{m}(Lm - xM)$