



35. A rod of negligible mass is pivoted at a point that is off-center, so that length  $l_1$  is different from length  $l_2$ . The figures above show two cases in which masses are suspended from the ends of the rod. In each case the unknown mass  $m$  is balanced by a known mass,  $M_1$  or  $M_2$ , so that the rod remains horizontal. What is the value of  $m$  in terms of the known masses?

(A)  $M_1 + M_2$

(B)  $\frac{M_1 + M_2}{2}$

(C)  $M_1 M_2$

(D)  $\frac{M_1 M_2}{2}$

(E)  $\sqrt{M_1 M_2}$