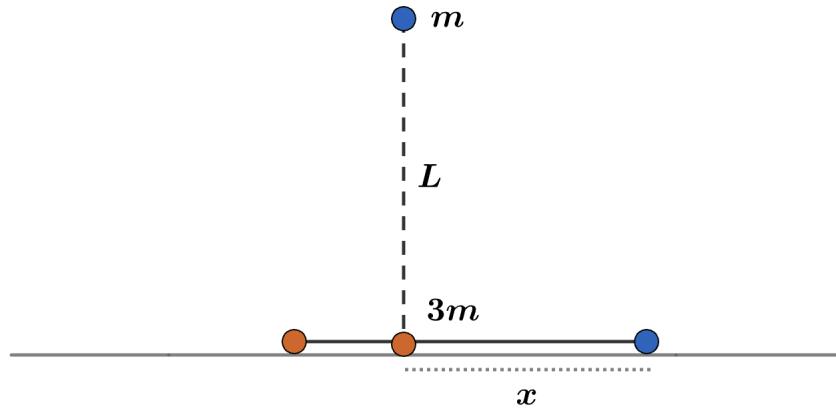


# 2016 F=ma Exam: Problem 21

Kevin S. Huang



There are no external forces on the system in the horizontal direction. Thus, the CM does not move in the horizontal direction. Setting the final position of  $m$  as the origin, the CM is located a distance

$$x = \frac{m(0) + 3m(L)}{m + 3m} = \frac{3L}{4}$$

to the left. Thus, the answer is A.