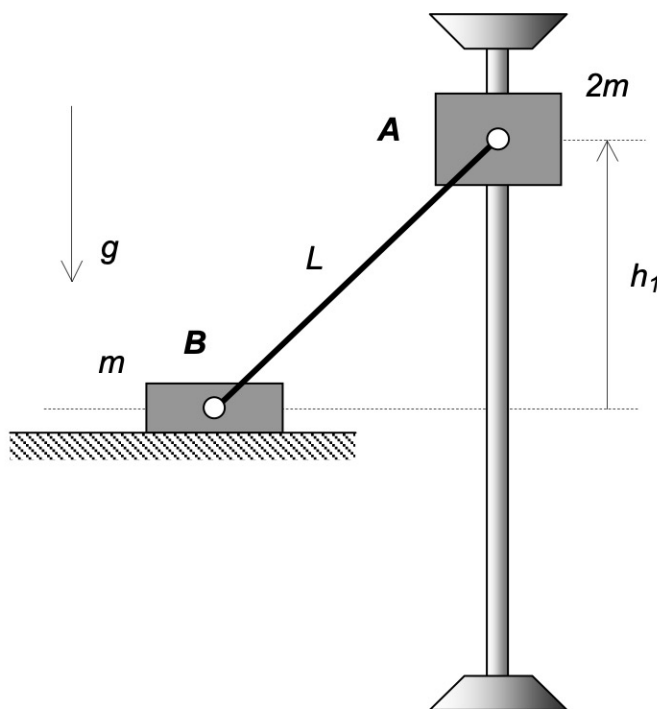


Homework H.4.H

Given: Blocks A and B (having masses of $2m$ and m , respectively) are connected by rigid, massless rod AB of length L . Block A is constrained to move along a smooth vertical guide, and B moves along a smooth, horizontal surface. The system is released from rest when A is at a height of h_1 ABOVE the path of B.

Find: Determine the speed of block A when A has dropped to a position that is at a distance of h_2 BELOW the path of B.



Use the following parameters in your analysis: $m = 10$ kg, $L = 0.5$ m, $h_1 = 0.4$ m and $h_2 = 0.3$ m.