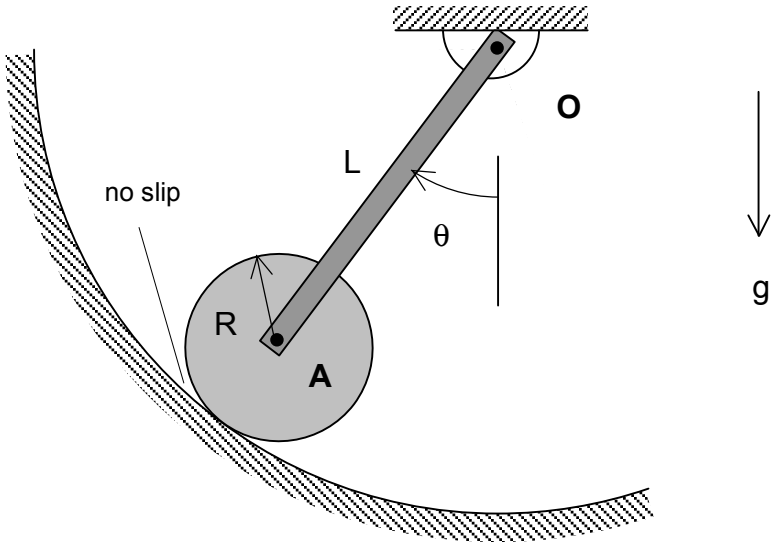
Homework H.5.I

Given: A thin homogeneous bar of length L and mass m is pinned to ground at point O. A homogeneous disk with a mass of M and radius R is PINNED to end A of the bar. The disk rolls without slipping on the inside of a circular surface. The system is released from rest with $\theta = 90°$.

Find: Find the angular velocity of the bar when $\theta = 0°$.



Use the following parameters in your analysis: $L = 1.5$ m, $R = 0.6$ m, $m = 30$ kg and $M = 100$ kg.