Problem 1

On an inclined plane of 30° a block, mass $m_2 = 4$ kg, is joined by a light cord to a solid cylinder, mass $m_1 = 8$ kg, radius $r = 5$ cm (*Fig. 1*). Find the acceleration if the bodies are released. The coefficient of friction between the block and the inclined plane $\mu = 0.2$. Friction at the bearing and rolling friction are negligible.

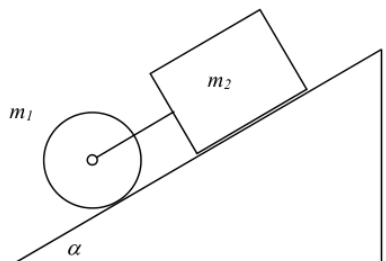


Figure 1