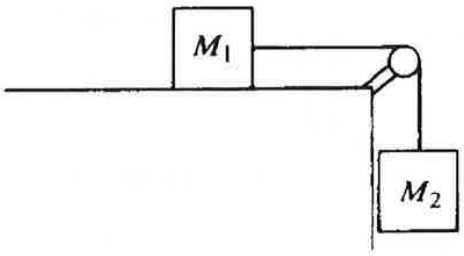
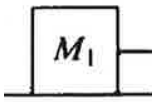
Name: _____

AP Physics 1: Atwood HW



1. Two blocks (M_1 and M_2) are attached together through a frictionless pulley with a cord of negligible mass. M_1 is sitting on a table with friction. The coefficient of kinetic friction (μ_k) between M_1 and the table is less than the coefficient of static friction (μ_s)

   A. On the diagram below, identify all the forces acting on mass 1.



   B. In terms of M_1, M_2, g, and μ_s , write a statement to determine the minimum value of μ_s that will prevent the block from moving.

The blocks are set in motion by giving M_2 a quick downward push. In terms of M_1, M_2, g, and μ_k write a statement for the following:

C. The acceleration of the system