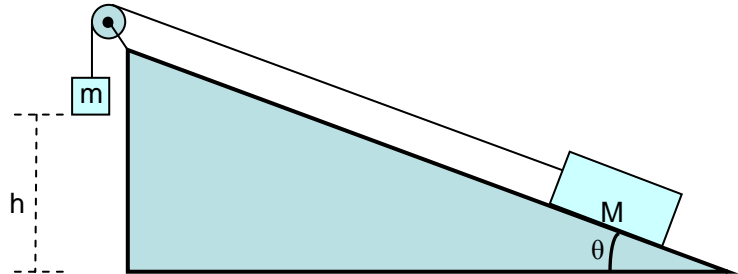


NAME: _____

1. Define work and state the work-energy theorem.

2. Give an example of a conservative force and a non-conservative force.

3. The figure below shows a system of two masses connected by a string. As m falls a distance h , M accelerates up the plane. The coefficient of friction between M and the inclined plane is μ .



Show that the change of kinetic energy is given by $\Delta K = \frac{1}{2}(m + M)[v_f^2 - v_i^2]$. Do not assume the system starts at rest.

What is the change in potential energy on the system after the m has fallen a distance h ?

What is the work done by friction on the system?