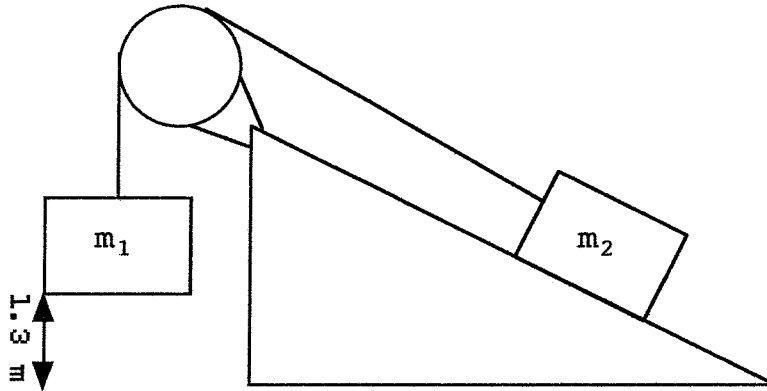


Quiz #4 ~~A~~ B

Clearly indicate (with a box) your answers to the following questions. SHOW ALL WORK.

1. Two blocks are connected by a thin rope over a frictionless pulley as shown below. The suspended mass $m_1 = 1.8$ kg and the mass on the 33° frictionless incline is $m_2 = 2.5$ kg. How much time does it take for m_1 to hit the ground if the system starts from rest?



2. Starting from rest, a worker tries to push a 750-N crate across a horizontal rough surface with an applied force of 240-N at 24° below the horizontal. The coefficient of static friction between the crate and the surface is 0.21. Does the crate move?