All graduate students are eligible to participate.

E-mail solution to bazaliy@mailbox.sc.edu by 11:59 PM of the last day

Combination pull

A triangle of mass \( m_1 \) can slide without friction on a horizontal surface. On the inclined side of this triangle sits a box of mass \( m_2 \). The incline angle is \( \alpha \). A rope is attached to the box, then goes over a massless pulley located at the top corner of the triangle, and then horizontally. There is no friction between the box and the incline, or in the pulley. Force \( F \) is applied to the end of the rope. Find the acceleration of the triangle.