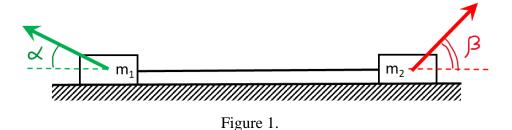Homework 9.

Two bricks of masses m_1 and m_2 are placed on the table and connected with a weightless and non-stretchable thread. Force F1 is applied to brick m_1 at an angle α with respect to the horizontal, force F2, applied to brick m_2 forms angle b with the horizontal (Figure 1).

Figure 1.

a) Find acceleration of the bricks and tension force of the thread if the table is frictionless.
b) Find acceleration of the bricks and tension force of the thread if the friction corfficient between the bricks and the table is k.