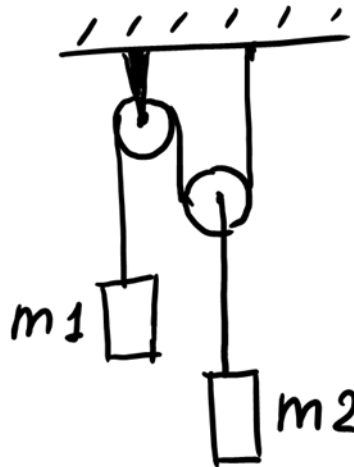Homework 6

1. Masses m_1 and m_2 (see Figure below) are both equal to 1 kg. Will they move if you let them go? If yes, find the accelerations of the masses. Find the tension force of the thread. The thread and the pulleys are massless.

2. . The weightless and non-stretchable cords holding two masses as it is shown in Figure below. If acceleration a =5m/s², find tension forces T_1 and T_2.
   The lower cord breaks if the tension exceeds 15 N. What is the maximum upward acceleration *a* one can give the masses without the cord breaking?