Tutorial 3

Problem 1. A person of 80 kg stands in an elevator. Determine the magnitude of the force exerted by the floor of the elevator on the person, if:

1. the elevator accelerates downward with acceleration 3 m/s^2,
2. the elevator accelerates upward with acceleration 3 m/s^2.

Problem 2. (K & K, Ex. 2.2) The two blocks M_1 and M_2 shown in the sketch are connected by a string of negligible mass. If the system is released from rest, find how far block M_1 slides in time t. Neglect friction.