PHY121 Summer 2018
Pre-work for Tuesday 6/5

1. Imagine that we place a 15 g weight at the 5 cm mark on a uniform meter stick, and we find that the meter stick now balances at the 35 cm mark. What is the mass of the meter stick?

2. A board of mass m lies on the ground. What is the magnitude of the force that you would have to exert to life one end of the board barely off the ground (so that the other end is still touching the ground)?

3. A helicopter's rotor spins clockwise as seen from above. The helicopter engine must continually exert a torque on the rotor in order to keep it spinning against air resistance. In order for the helicopter to hover motionless, therefore, a small rotor at the tail is required. As seen by a person looking at the tail from in front of the helicopter, the tail rotor must blow air in which direction?