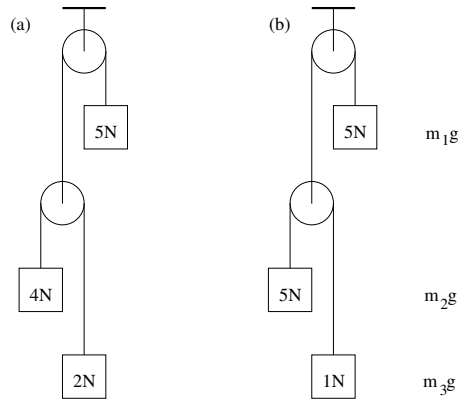


**[mex9] Atwood machine**

Consider two Atwood machines with different weights. The pulleys and ropes have negligible mass. All weights and pulleys are initially at rest. Use  $g \simeq 9.8\text{ms}^{-2}$ . Determine whether the lower pulley will start to move up or down in each case. Calculate the tensions  $T_1$  and  $T_2$  in the upper and lower ropes, respectively. State the final results in SI units with two digits accuracy.



**Solution:**