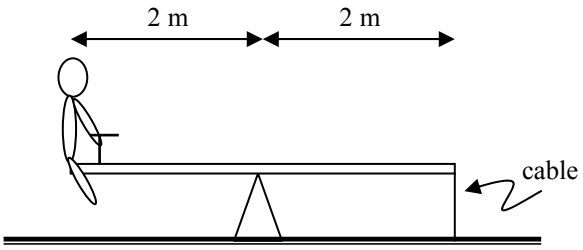
W4.01

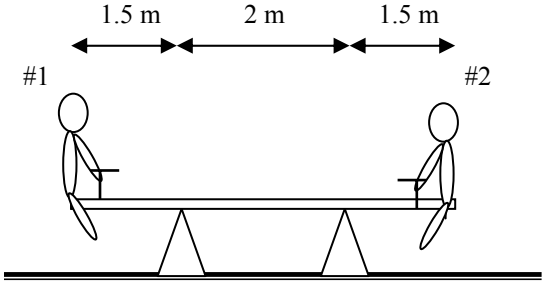
STATIC EQUILIBRIUM – "See-Saws"

$\Sigma F = 0$ & $\Sigma \tau = 0$

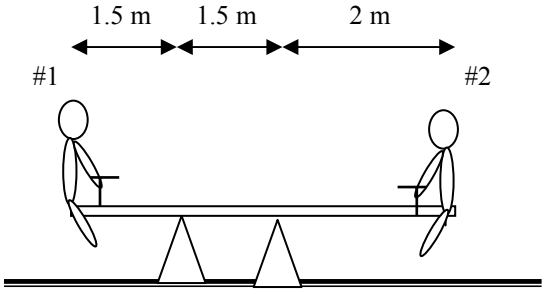
[1] Find the tension in the cable and the force of the support.
Note: The board is 500 N & the person is 1,500 N



[2] Find the force provided by each support.
Note: The board is 600 N, person #1 is 1,500 N & person #2 is 2,000 N



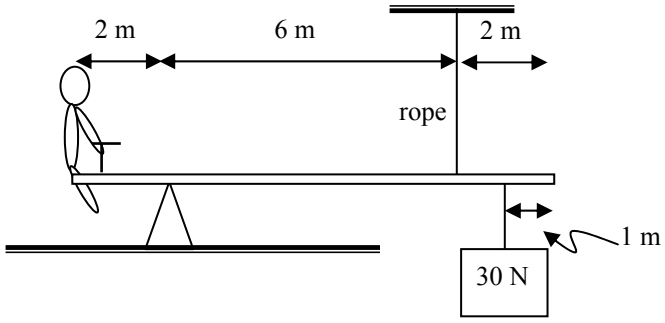
[3] Find the force provided by each support.
Note: The board is 600 N, person #1 is 1,500 N & person #2 is 1,000 N



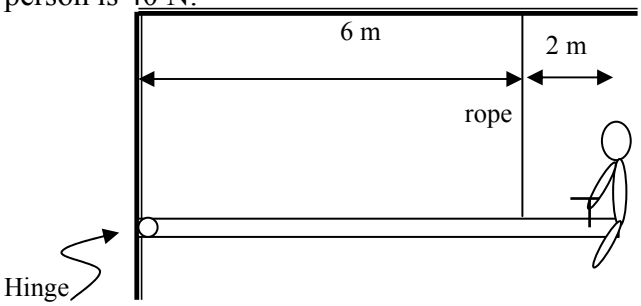
STATIC EQUILIBRIUM – "See-Saws"

$\Sigma F = 0$ & $\Sigma \tau = 0$

[4] Find the weight of the board & the weight of the person.
Note: The support pushes up with 20 N & the tension is rope is 40 N.



[5] Find the tension in the rope & the force the hinge provides in both the horizontal and vertical directions. Note: The weight of the board is 60 N & the weight of the person is 40 N.



[6] Find the tension in the rope, the horizontal "pull" force & the force the support.
Note: The weight of the board is 400 N & the weight of the person is 100 N.