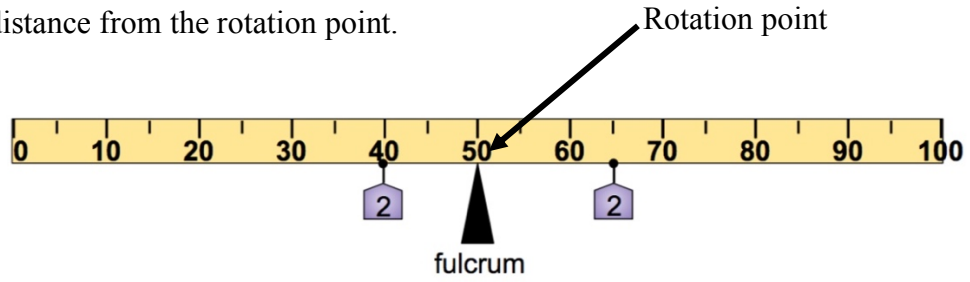
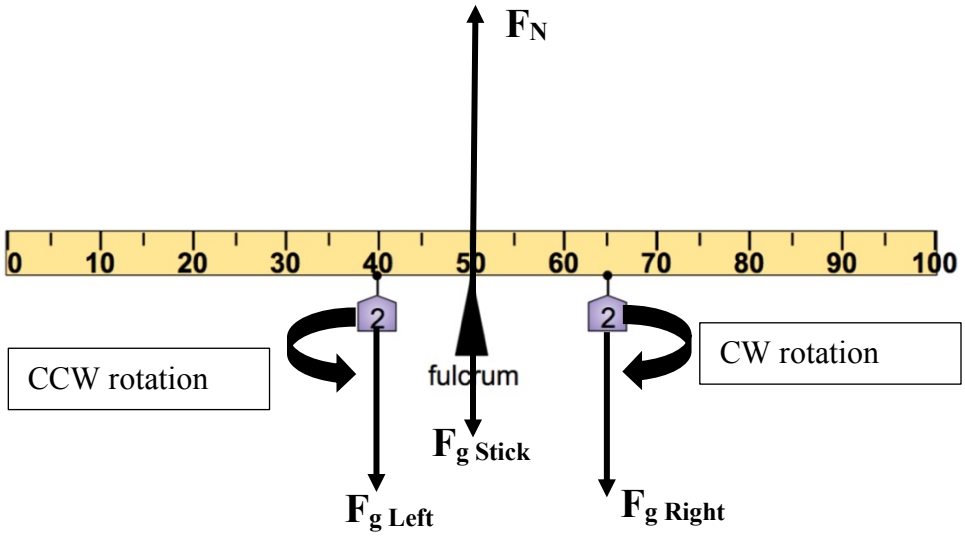
Net Torque – Static Equilibrium $\Sigma\tau = r_{\perp_1} F_1 + r_{\perp_2} F_2 + \cdots$

Draw a picture and place the forces at the spot the force acts. The force of gravity (weight Fg = m*g) acts at the center of the uniform object. If an object is in balance then the Torques add up to 0 N*m and it is called Static Equilibrium. AND this also means the Net force has to be 0 N.

If the force causes a COUNTERclockwise (CCW) rotation then it is Positive.
If the force causes a clockwise (CW) rotation then it is Negative.

Measure the distance from the rotation point.





$$\Sigma\tau = r_{\perp_1} F_1 + r_{\perp_2} F_2$$

$$\Sigma\tau = 0.1\ m * \left(2kg * 10\frac{N}{kg}\right) - 0.15\ m * \left(2kg * 10\frac{N}{kg}\right)$$

$$\Sigma\tau = 2.0\ N * m\ - 3.0\ N * m$$

$$\Sigma\tau = -1.0\ N * m$$